Clinical Medicine

Original Articles for October, 1955

WHEN BLOOD PRESSURE MUST COME DOWN

Serpasil-Apresoline

COMBINATION TABLETS

WITH RESERPINE AND APRESOLINE

BETTER RESPONSE

87 per cent of patients improved

LOWER DOSAGE

averaged only 331 mg. Apresoline daily

FEWER SIDE EFFECTS

headache, tachycardia and palpitation in only 7 per cent

Reference: Hughes, W. M., Dennis, E., and Moyer, J. H.: Am. J. M. Sc. *229*:121 (Feb.)

CIBA SUMMIT, NEW JERSEY

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EDITORIAL

The "Little Strokes"

Frequently missed in the diagnosis, symptoms of little apoplectic strokes often are well controlled by proper therapy

JAMES M. NORTHINGTON, M.D., *Editor*

Many great services to the ailing have been rendered by Dr. W. C. Alvarez during his many years at the Mayo Clinic. Few, if any, rank higher than what he has taught about little apoplectic strokes. An abstract of his recent conclusions on this subject is passed on for the earnest consideration of all readers.

One of the commonest diseases of man is that in which, over the course of 10 or 20 years, a person is gradually pulled down by dozens or scores of thromboses of little arteries in the brain. The diagnosis is often delayed, either because the patient fails to tell the doctor of a bad dizzy spell at the start of his trouble, or the doctor is not well enough acquainted with the more puzzling symptoms that can result from little strokes.

In most cases there are no weakened muscles, no trouble with speech, and no areas of anesthesia, because the thrombosed arteriole was in a "silent area." In such cases the patient may suffer only from changes in character, in ability, in judgment, or in emotional stability—changes that he does not think to mention. Question the relatives.

A little stroke may be suspected whenever a man or woman past 38 has a mental and nervous disability that is out of all proportion to the little indigestion, abdominal, or thoracic pain complained of; or a nervous breakdown or a queer group of symptoms come suddenly on a certain day; or one learns from the family that, after a dizzy spell, a

faint, or perhaps a fall, there came changes in character and perhaps an inability to work.

Persons with little strokes can easily mislead the doctor by not telling all of the essential story. A woman of 60 was seen by able internists. She complained of a burning "misery" over her left hip day and night for 4 years. Constant burning or widespread misery has its origin in the central nervous system. The woman had had 4 typical little strokes, 2 with mental confusion, loss in the sense of balance and difficulty in writing. One stroke came while crossing a street, and she was pulled out of the stream of traffic. Her son told the doctor about the several spells, which, in his opinion, had been strokes. X-ray revealed some silent gallstones; she was no better for the operation. Today, years later, the old distresses persist unchanged.

That most of the disability on the first day is due only to shock or edema is suggested by a report of sudden and remarkable improvement after the prompt administration of cortisone.

Many of these patients go 10 or 15 years without more strokes. One or 2 tablets of iodobrassid (Lipoiodine), taken daily, may be of benefit. Sometimes, with its use, recovery has come even after several months of no improvement. Three grains of thyroid substance daily tends to reduce greatly the amount of large-molecule cholesterol in the blood, and this might help. Most pessimism is to be felt about the persons whose character and ability have been badly changed for the worse.

Tell the patient that he need not fear that a "third stroke" will kill; this is only old folklore with no truth in it.

In many cases a man's employers or partners need to know quickly that he is never likely to work again. Many a man who has lost his drive and skills should be retired quickly, before he wrecks his department or his business.

J.A.M.A., 157:1199-1204, 1955.

ORIGINAL ARTICLES

Surgical Planing—An Office Procedure For The Removal of Facial Scars and Port Wine Stains

Use of this technique of dermal abrasion produces more satisfactory results than those obtained from any of the previous methods

IRVING D. LONDON, M.D., *Montgomery, Alabama*

The idea of dermal abrasion, for the removal of facial scars and marks, is not new. Kromayer first devised mechanical punches and cylindrical knives, operated by motor, to remove tiny acne pits, scars and nevi from the face in 1905. Later he used various steel burrs and rasps for the abrasion of lentigines, freckles, warts and pigmentation. Various anesthetic agents were used, including ethyl chloride, which served also as a skin hardener. One of Kromayer's last papers (1933) dealt with abrasion using steel burrs for such superficial conditions as juvenile warts, freckles and pigmentations. No anesthesia was used.

Later ordinary carpenter's sandpaper was used for the removal of traumatic tattoos of the face, and the correction of acne pitting and scarring, all under general anesthesia in hospital. Some surgeons abraded small patches with sandpaper in the office, using a locally infiltrated anesthetic.

Kurtin, recognizing the disadvantages of this technique, substituted refrigeration of the skin with ethyl chloride for general anesthesia, and motor-powered wire brushes for the sandpaper. This method, which he called "Surgical Planing," was safe and could be used in the office to remove acne pits, traumatic scars, tattoos, wrinkles and other facial marks. In 1953, he reported on 273 cases treated by this method.

This paper deals with the tech-

nique of dermal abrasion by the surgical planing method, and the results of its use in treating various conditions.

METHOD

Surgical planing requires the following equipment:

1. A specially constructed 1/12 H.P. motor to drive the wire brush at 12,000 rpm.
2. Circular stainless-steel wire brushes, 2 mm. & 4 mm. in width.
3. Freon 114 in aerosol spray-top cans.
4. Propylene glycol pre-chilling packs.
5. Protective face masks and clothing.

Prior to the operation, the face is washed thoroughly with soap and water, and cleansed with alcohol. Men are instructed to shave closely before coming to the office. Pre-chilling packs are applied to the areas to be planed for 20 minutes prior to the operation, so that the initial effect of the refrigerant is not painful. Freon 114 in aerosol-spray-top cans is now used as a refrigerant, in place of ethyl chloride. Freon is non-explosive and does not induce sleep if inhaled, so that it is more desirable than the older ethyl chloride spray method. It is also easier to use, requiring no blower for rapid evaporation. The refrigerant is sprayed onto the skin for 30 seconds, until the skin surface is frozen solid. An assistant shields the eyes with gauze. The skin remains frozen and bloodless up to 3 or 4 minutes. Areas up to about 3 inches square are frozen at one time.

The rotating brush is then moved across the frozen skin with the same motion used in shaving, i.e., in the long axis of the handle of the brush. The frozen skin shows the depressions and elevations of the scars and the pits, and serves as a guide to the depth of planing. There is no bleeding until the skin begins to thaw out when slight oozing occurs. The planing may be continued for ½ minute longer, as the skin is still insensitive. Capillary bleeding occurs as the skin thaws out and is controlled by pressure dressings. By successive refrigeration and planing of adjacent areas, the face or other large areas can be treated at one operation.

For the most part, there is no pain during the procedure, unless the operator accidentally moves the brush out along the edge of the frozen area. Even in this case, in many instances the patient does not feel any pain, although he may detect something crawling or moving across his skin. There is very little post-operative pain. A slight ooze of blood continues for 20 to 30 minutes. During this time, the patient remains in the office with sterile pressure dressings applied. These are changed just before the patient goes home. He is instructed to remove the dressings on his return home, and no dressings are applied thereafter. The serous ooze over the abraded surface is allowed to coagulate. This takes 24 to 36 hours. The patient sponges off the excess serum as it drips off the edge of the abraded area.

Other operators have applied sterile dressings with various antibiotic ointments for several days post-operatively. These have had to be removed several times daily and the serum allowed to clot afterwards, which delays healing. From the 2d to the 5th post-operative day, there may be some edema, especially around the eyes. This subsides without any treatment and the patient has to be reassured that this is normal. It does not delay the healing process.

The epidermis regenerates under the crust from the epidermal margin surrounding the treated area, and from follicular epidermal buds

which remain in the dermis of the planed skin. When the crust comes off, usually in 6 to 12 days, the regenerated epidermis is not shiny and is fresh and pink and without scar. The area should be protected for several weeks from sunlight, as there is no melanin to protect it. In the Southern United States, the regenerated skin tends to become hyperpigmented. However, in one to four months the color of it has the same color as the surrounding skin, and the pigment is uniformly and evenly distributed. The patient must be advised about this prior to operation so that he may know what to expect. Regeneration of epidermis will always take place if the abrasion has been carried out to the midcutis and not below the level of the follicles, from which the epidermal buds regenerate.

TYPES OF CONDITIONS TREATED

The following conditions have been treated by planing: Acne pitting and scarring, traumatic scars, burn scars, port wine stains, nevi, tattoos, cystic acne, keloidal acne.

The greatest number of patients treated have had pitting and scarring of the face, due to acne. This responds exceedingly well to the abrasion procession. In all cases benefit results from even one planing Some require no further treatment. A few require two or more planings. None have had more than 4 in any single area. The icepick type of acne scar, which is deep and extends to the subcutis, usually does not respond to the planing procedure, and may be treated by tiny grafts obtained by skin punches.

These acne patients are immensely grateful for relief afforded them, both physically and mentally. Usually there is no recurrence of acne lesions in the planed areas, although the acne may recur in surrounding, non-abraded areas. The planing evidently removes many of the sebaceous elements in the mid-dermis, so that the acne comedo and papule do not recur.

TRAUMATIC SCARS

Traumatic scars, following lacerations of the face, respond very well to abrasion. These scars, usually the result of an auto accident, are very evident because the scar itself is slightly depressed thereby producing a visible shadow. By planing the edges, the skin margins are brought to the level of the scar, and as no shadow is seen, the scar becomes practically invisible. These scars are not removed but are considerably improved.

Planing can also be used to mask and level off scars resulting from operative incisions on the face and on other areas.

PORT WINE STAINS

This capillary hemangioma has heretofore not responded to any known form of therapy. It has been covered by various cosmetics and recently tatooing of flesh colored pigment over the mark has been recommended. This however, has not always been successful and leaves the face mask-like.

I have now successfully treated 7 port-wine stains. The depth to which the capillary hemangioma descends into the cutis determines how effective dermal abrasion will be in removing the mark. If limited to the upper dermis, the mask may be completely removed. This has been done in two cases, in which only one planing removed the mark completely, leaving a smooth, normal skin.

In five other cases where the mark was unevenly distributed, and some of the hemangioma descended to the deeper portions of the dermis, planing removed 60 to 90% of the marks, leaving a light pink mark after one to three planings.

TATTOOS

These may be removed more or less successfully, depending on the age of the tattoo mark and whether there is a desire to obliterate the mark or remove it completely. The tattoo pigment in recently applied tattoos is high up in the dermis, and in these the tattoo can be completely removed by planing. The author abraded such a tattoo design only 5 days old from the breasts of a young woman. This design was raised above the skin surface and a single planing removed every trace of pigment, with complete healing of the skin and no trace of a scar. In cases of older tattoo marks, the pigment has migrated to the lower dermis and probably produced fibrosis about itself. In these cases, I have attempted to obliterate the design rather than remove every trace of pigment. This was successfully done in several cases of tattoos of 5 to 10 years duration, without leaving any residual scar. However, several small dots of pigment remained scattered in the area.

I have seen a tattoo planed elsewhere, in which every trace of pigment was removed, but herniation into the subcutaneous tissue resulted, and a large scar.

OTHER CONDITIONS TREATED

Several cases of cystic acne of the face, have been planed. The contents drain through tiny openings produced by the planing brush, with collapse of the cyst walls, and healing of the lesion without scarring. Two cases of acne keloidalis of the nape of the neck have been benefitted by planing.

In planing the face for acne scars, many small benign pigmented nevi have been completely removed by the planing brush, leaving no scar nor pigmentation.

I recently removed two linear verrucous nevi from the scalp and forehead of a colored girl, leaving no scar. The color of the skin gradually pigmented to normal.

Seborrheic verrucae in both white and colored patients have responded completely successfully. A single blue nevus on the forehead was treated by this method, the color of the nevus diminishing 75%. Other superficial nevi have also been removed by this method. Other operators have treated rhinophyma, adenoma sebaceum, chloasma, freckling and superficial epitheliomas and benign keratoses by this method.

The author has also attempted to treat two burn scars of the face and neck. In one of these, the edge of a scar was remarkably improved. In the other, a grafted area was abraded resulting in infection and destruction of the old graft and necessitating a new graft. This was due, undoubtedly, to the poor vascular supply in the graft.

COMPLICATIONS

1. *Infection:*

Because of the excellent blood supply of the face, no infection occurs, unless the patient meddles with the crust. A single instance of this occurred which resulted in an impetiginous crust. This responded to a single injection of penicillin and produced no scar. A second infection was in the case of a planing over a grafted burn scar. This appeared to be infected under the crust, and the grafted area required regrafting at a later date.

2. *Milia:*

Milia are commonly seen in many of the acne cases which are planed. Because the outlets of many of the sebaceous glands are stripped away, the ducts become blocked on healing. These are very easily expressed and result in no further disability.

3. *Scarring:*

This need not develop, if the planing has not been carried below the

level of the follicles or into the hypoderm. None of my cases have resulted in scarring.

DISCUSSION

Dermal abrasion by planing is available for the treatment of various scars and marks on the skin, especially those of the face. The advantages of the planing procedure over the sandpaper method are very evident, as are the results obtained. Hospitalization is no longer required and the patient can be treated in the office, using a spray refrigerant for anesthesia. No bandaging is necessary following operation, and the depth to which abrasion may proceed is controlled under vision. The epidermis regenerates, provided the level of abrasion has not been carried too deep into the dermis. Operators who have used both sandpapering and planing, all report more satisfactory results with the newer method. Most of the patients treated have had acne scarring and pitting. Other lesions, especially port-wine stains and superficial nevi, respond very well to this treatment. The limitations of dermal abrasion for removal of tattoos have been noted.

The psychic relief of patients with disfiguring marks and scars of the face, which have previously not been amenable to therapy, is most gratifying.

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Treatment of Thyroid Disease

An excellent symptomatic classification of the disorders of the thyroid gland and various effective methods of management

BENTLEY P. COLCOCK, M.D.,* *Boston, Massachusetts*

Disease of the thyroid gland may manifest itself in many ways: as a single nodule in either lobe, or as multiple nodules in both lobes; as a very hard enlargement of either or both lobes. It may give rise to nervousness, tachycardia and loss of weight. In hyperthyroidism occurring in a patient over 50 or 60, the presenting symptoms may be those of cardiac decompensation, such as shortness of breath and edema of the lower extremities often associated with auricular fibrillation.

It is fortunate that this powerful gland of internal secretion, unlike the pancreas, the adrenal or the pituitary, is situated near the surface, where changes in size, configuration and consistency can be determined by palpation. It is fortunate also that we have agents such as iodine, thiouracil, radioactive iodine and deep x-ray therapy — which have a specific and profound effect upon the thyroid gland. We must not lose sight of the fact, however, that despite the availability of these therapeutic agents and all we have learned about the physiology and pathology of the thyroid, surgical intervention must be seriously considered for most aspects of thyroid disease.

COLLOID OR ADOLESCENT GOITER

These patients, usually girls between 12 and 18 years of age, have a diffuse, soft enlargement of the thyroid, but they do not have thyroid disease in the sense that any

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specific treatment is indicated. The soft symmetrical enlargement of the gland is due to an iodine deficiency in early life. When these girls are brought to the physician because of nervousness, inability to gain weight and emotional instability, they do not have the cardinal signs and symptoms of hyperthyroidism. Their basal metabolic rate, repeated and checked carefully, will be found to be normal. Their inability to gain weight is likely due to poor appetite; they do not have the excessive appetite of patients with hyperthyroidism. Given Lugol's solution, 5 drops three times a day, there is often no effect on the thyroid enlargement. Later in life many will be found to have a multiple colloid adenomatous goiter, but at this stage, the thyroid enlargement is not affecting their health in any way.

THYROIDITIS

Acute Thyroiditis

Acute thyroiditis, a diffuse, firm, very tender enlargement of the thyroid gland, is quite uncommon, lasts but a few weeks and often responds to the antibiotics, to thiouracil or to x-ray therapy. It rarely leads to the development of an abscess.

Chronic Thyroiditis

Chronic thyroiditis may manifest itself as a very hard enlargement of both lobes or it may be limited largely to one side. As in most instances of thyroid disease, it is more common in females. If it involves both lobes, it may cause a sense of constriction in the throat and roentgenologic examination often discloses some narrowing of the trachea. The main problem here is the difficulty in distinguishing chronic thyroiditis from carcinoma by palpation of the gland. This means that in most instances we must obtain histological proof that the case is one of chronic thyroiditis and not carcinoma. Since most of these patients will eventually develop hypothyroidism a biopsy only, or at the most, a very conservative thyroidectomy, is carried out. If the process is bilateral, the isthmus is removed for the biopsy. This will rule out the presence of carcinoma and at the same time liberate any constriction of the trachea.

MULTIPLE COLLOID ADENOMATOUS GOITER

This afflicts patients of middle age or older, who often consult their physician because of the size of the mass in their neck. The physician may detect an audible inspiratory stridor due to a narrowed trachea, even though, because of its gradual development, the patient has not been conscious of dyspnea. If the trachea is compressed or deviated, the goiter should be removed by a subtotal thyroidectomy. All adenomatous goiters descend in the neck as they enlarge, and if they pass behind the sternum all of their future growth will be within the chest, hidden from the patient. The patient may feel that the mass present for years has recently become smaller. If the physician cannot feel the lower border of an adenomatous goiter he should obtain a chest roentgenogram to rule out an intrathoracic goiter. This information the anesthesiologist and surgeon must have. If an endotracheal tube is not in place before the operation is started in such a case, death may occur from tracheal occlusion during the removal of the goiter.

Many patients with multiple nodular goiter will develop secondary hyperthyroidism as they grow older—lose weight, pulse rate increases, often with auricular fibrillation. They may not have the signs so characteristic of exophthalmic goiter; exophthalmus often is absent. As a result of this extra load upon the heart, cardiac decompensation

may develop. Although these patients are seriously ill and require very careful management, this is a form of heart disease which can often be completely relieved. The cardiac reserve of these patients may suffice to carry them along without symptoms, once the excess load of the hyperthyroidism is removed. Iodine is of no value in these patients, but propylthiouracil, in sufficent dosage over a sufficient period of time, will bring them back to a euthyroid state. Many patients in this group will require 6 to 9 months of this treatment, plus general medical measures to restore metabolism to normal and relieve cardiac symptoms. Most of these patients will become reasonably good operative risks and a subtotal thyroidectomy can be carried out with a low mortality.

If after adequate preparation these patients are still considered serious operative risks, or if they refuse surgery, they can be carried along by daily use of propylthiouracil. All patients receiving the antithyroid drugs, must be kept under close observation so that reactions to the drug, particularly the development of agranulocytosis, may be detected promptly. If this most serious of all the complications related to the antithyroid drugs, does develop, the use of propylthiouracil should be stopped, and large doses of penicillin given to protect against infections and especially agranulocytic angina, until their leukocyte count has returned to normal. With certain exceptions, radioactive iodine is contraindicated in patients with nodular goiter, even though it is associated with secondary hyperthyroidism.

Although the risk of malignant degeneration of a multiple nodular goiter is much less than of a single nodule in the thyroid gland, carcinoma does occur in cases of multiple colloid adenomatous goiter. It may even occur in nodular goiter with secondary hyperthyroidism. It represents an additional reason for thyroidectomy, particularly if any of the nodules are unusually firm or the goiter is increasing in size.

SOLITARY NODULE OF THE THYROID

A solitary nodule of the thyroid may be significant and require treatment for any one of the same three reasons for which a multiple nodular goiter may require treatment. It may become extremely large and produce marked deviation and compression of the trachea, it may become intrathoracic, and it may lead to the development of hyperthyroidism. Its removal should be advised if any one of these conditions develop.

Most important to the patient with the solitary nodule in the thyroid gland is the possibility that it may be malignant. We do not know how many carcinomas develop in a previously benign adenoma of the thyroid, or how many are carcinoma from the beginning. All carcinoma of the thyroid manifests itself in its early stages as a solitary lump in the right or left lobe or in the isthmus. For this reason, any single or solitary nodule occurring in the thyroid gland should be removed, regardless of the age of the patient or the size of the nodule.

CARCINOMA OF THE THYROID

The importance of the solitary nodule in the thyroid gland, as a precursor of carcinoma will be especially appreciated, when we realize that there are no other signs or symptoms of carcinoma of the thyroid at a stage when it is curable. Eventually the thyroid nodule becomes fixed to the trachea and esophagus and may lead to hoarseness —the lesion is then no longer completely removable.

Cancer of the thyroid occurs mostly in women. A great many of them

under 45 years of age. There is no way to detect carcinoma of the thyroid in its early stages unless we advise the removal of all solitary nodules in the gland.

If one attempts to arrive at the incidence by taking the number of patients who die in a hospital and whose autopsies prove that they died from cancer of the thyroid, and comparing this figure with the estimated incidence of all nodular goiter, large or small, multiple or single, in the general population, particularly in an endemic goiter region, a low figure is obtained. On the other hand, any active surgeon who sees many patients with thyroid disease will see a considerable number with carcinoma of the thyroid. In our experience, when all types of thyroid disease are included, the incidence of carcinoma, is over 5 per cent. If patients with primary hyperthyroidism, in whom carcinoma of the thyroid is rare, are eliminated, the incidence is doubled. We know that our thyroid patients represent a certain degree of selection as regards the incidence of nodular goiter in the general population; but the patients in any physician's office represent a certain degree of selection. The average patient with a nodule in his neck does not consult his physician until it has reached a considerable size, and if the patient has a short, thick neck, the nodule may be an inch or more in diameter before he is aware of it. The risk of removing a nodule in the thyroid gland is negligible, and it does not seem reasonable to watch any of these patients to see whether the nodule will develop obvious signs of cancer.

PRIMARY HYPERTHYROIDISM

The signs and symptoms of primary hyperthyroidism or exophthalmic goiter are so well known that only in the borderline or mild forms is there any difficulty in making the diagnosis. Patients with borderline cases can be kept under observation until it is obvious that thyroid toxicity is or is not developing. The best and most practical laboratory test is still the B.M.R. The initial reading may not be a true one, but if the test is repeated with special attention to the freshness of the soda lime, the fit of the mask, and so forth, a true reading will usually be established.

HYPERTHYROIDISM THERAPY

There are 3 effective ways of treating patients with primary hyperthyroidism. If an antithyroid drug, particularly propylthiouracil, is given in sufficient amounts over a sufficient period of time (usually 2 to 3 months), the symptoms will be completely relieved, and the B.M.R. brought to normal. In a few cases the remission will be maintained even though the drug is discontinued. The great majority will require continued treatment with the antithyroid drug to prevent a relapse or recurrence. They must be followed indefinitely to see that they do not neglect to take their medication and that undesirable side reactions of this drug do not develop. Although in our experience propylthiouracil has been the safest of the antithyroid agents, it occasionally leads to agranulocytosis, which must be recognized and treated promptly if a fatality is to be prevented.

Patients with primary hyperthyrodism may be treated with radioactive iodine. This method requires special facilities and special precautions for the patient and the hospital personnel. It is an effective means of destroying the thyroid gland. The dose is calculated according to the estimated amount of thyroid tissue present as determined by palpation. Because this is difficult to do accurately, the dose may have to be repeated in order to obtain relief of symptoms, and for the same reason

the incidence of myxedema is high.

Whether or not radioactive iodine is carcinogenic is still not known. There is no evidence so far to suggest that this is so, but many more years will pass before we know the answer to this question. The same is true concerning the question of mutation changes occurring in the ovaries of young women who are given radioactive iodine. Because of its safety, however, it is probably the treatment of choice in patients with recurrent hyperthyroidism who have remnants of small or only moderate size. It also should be considered in any patient over 60 years of age who is a poor operative risk.

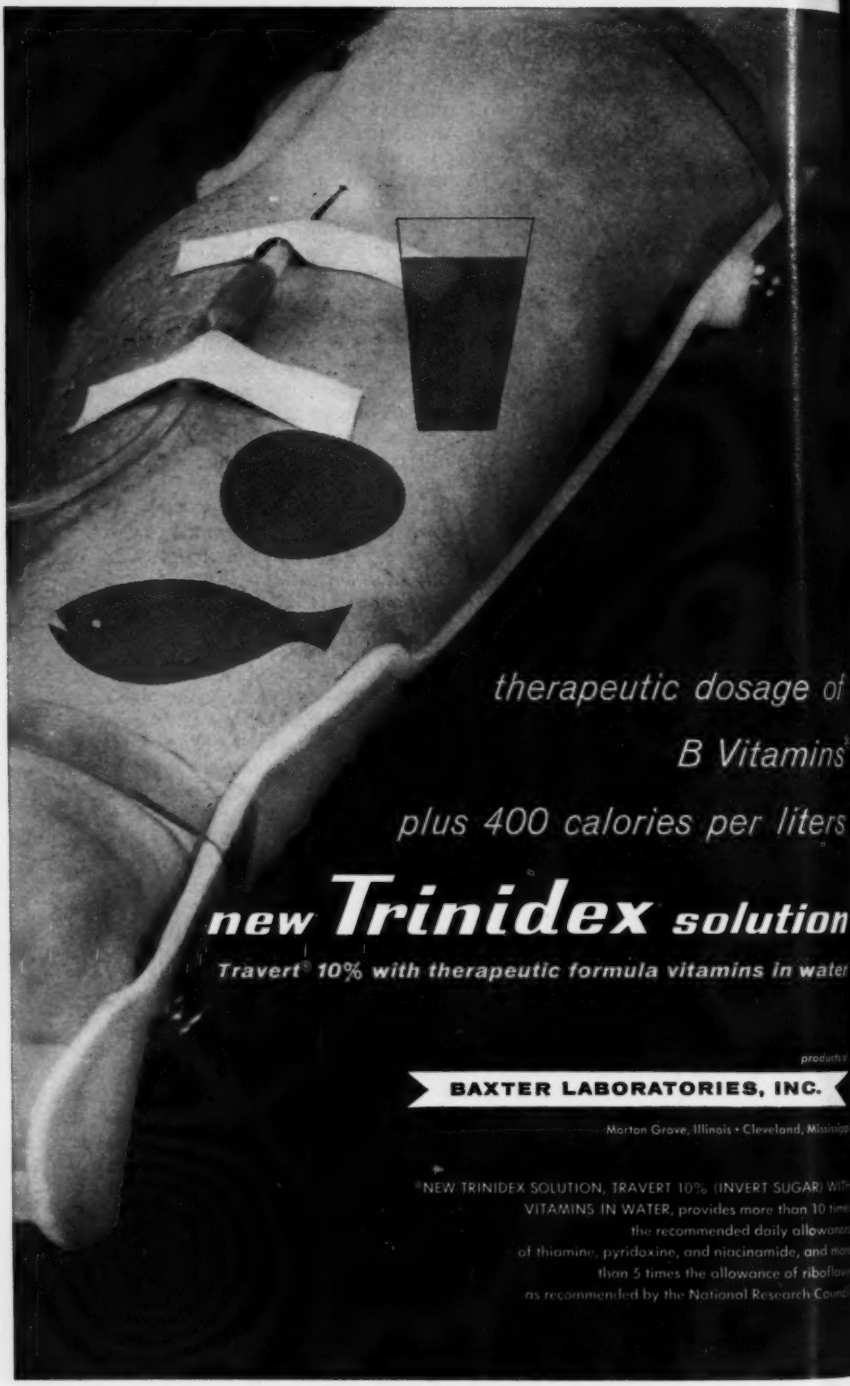
The third effective means of treating patients with hyperthyroidism is preparation with antithyroid drugs, followed by subtotal thyroidectomy. The propylthiouracil is given until the B.M.R. has been brought to normal. Patients with primary hyperthyroidism will usually sustain a drop in the rate of 1 point per day. Thus, patients with B.M.R. + 60 will require two months of treatment before they are ready for surgery. The patient with adenomatous goiter and secondary hyperthyroidism will require twice this length of time. The risk of laryngeal edema in the postoperative patient is increased if patients have any degree of myxedema. If hypothyroidism occurs, the drug should be stopped and the metabolism allowed to return to normal before thyroidectomy is carried out. Propylthiouracil can be given safely in dosages of 1 to 2 gm. daily if necessary in order to bring a patient with severe disease under control.

Iodine still plays a part in this plan of management for patients with hyperthyroidism. It is given to all of these patients during the last 10 days before surgery, in order to produce involution of the gland. If this is not done, the friability of the hyperplastic gland makes hemostasis difficult at operation. Iodine may also be started immediately if a patient is on the verge of thyroid storm in order to gain control of his toxicity as quickly as possible. Iodine is effective within a few days after its administration, whereas the antithyroid drugs require a few weeks. In the great majority of cases, iodine is not given from the beginning, because it interferes somewhat with the effect of the antithyroid drug, and the preparation of these patients will be prolonged.

Thyroidectomy is more safely performed if an endotracheal tube is in place. The use of the muscle relaxant drugs such as Syncurine or Anectine permits the introduction of the tube with very light anesthesia. We believe that the mortality and the morbidity of thyroid surgery will be lower if adequate exposure is obtained. An ample incision is made and the prethyroid muscles are routinely divided. Because thyrocardiac patients withstand poorly even mild degrees of anoxemia, a prophylactic tracheotomy is carried out on these patients at the conclusion of the operative procedure. Practically the only mortality associated with thyroid surgery today occurs in this group of patients, and there have been no deaths during the last 3 years since this prophylactic procedure has been utilized.

LOW MORBIDITY RATE

This method of management for patients with hyperthyroidism results in a low morbidity rate, a low incidence of complications and a mortality rate of 0.16 per cent. It is a method of treatment which is available anywhere that good thyroid surgery is being carried out. The average hospitalization period is 4 to 5 days, the cure rate 98 per cent. We believe it represents the treatment of choice for all good-risk patients with hyperthyroidism.



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Breech Presentation with Hyperextension of the Neck

Case histories are presented in detail and individualized treatments are outlined; routine x-ray examinations are advised

ROBERT B. NELSON, M.D.,* *Washington, D.C.*

The increased hazard to the fetus in breech presentation, the incidence of which is 4%, is attested by the mortality rates ranging from 7% for term infants to 50% for the premature. Trauma during delivery, prolapse of the cord or cord tight around the neck, premature separation of the placenta, cephalopelvic disproportion, incompletely dilated cervix, extension of the after-coming head, and congenital anomalies are among the causes of fetal death in breech presentation. It is the purpose of this paper to discuss another complication, hyperextension of the neck, which may result in fetal injury during labor and delibery.

Two cases of this condition were encountered on the Obstetrical Service at Garfield Memorial Hospital, 1937-1939. Review of the literature at that time revealed reports of 2 similar cases, 1 by Laffont[1] (1918) and 1 by Garipuy[2] (1935). In 1936 Brakemann[3] in a radiological survey of fetal attitude in 191 cases of breech presentation reported as follows:

Attitude of Vertex	*Cases*	*%*
Complete flexion	42	21.9
Neutral	116	60.7
Mild extension (sinciput)	12	6.2
Forehead extension ..	19	9.9
Face extension	2	1.0

* From the Department of Obstetrics, Garfield Memorial Hospital, Washington, D. C.

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2. Garipuy, A.: *Soc. d'obst. et de gynec.*, 24:252, 1935.
3. Brakemann, O.: *Ztschr. f. Geburtsh. u. Gynak.*, 112:154, 1936.

Melody[4] (1948), Taylor[5] (1948), and Dougherty et al[6] (1953) each reported a single case of face hyperextension in breech presentation. In 1949 Wilcox[7] reported his investigation of the problem in 216 cases subjected to radiologic study out of the 1,918 breech presentations occurring at the New York Hospital, 1932 to 1947. He classified these 216 cases as follows: complete flexion, 86 (39.8%); neutral extension, 107 (49.5%); hyperextension, 23 (10.7%). Two of these cases were of sufficient extent to be classified as face hyperextension.

A recent case of my own, the third in my experience, renewed my interest in the problem and is included in this report.

REPORT OF CASES

Case 1. A 27-year-old white gravida I, was admitted to the hospital at term, Aug. 16, 1937. Abdominal examination prior to her admission had revealed a term pregnancy with the head palpable in the upper right section of the fundus. The small parts and a flat surface interpreted to be the chest lay on the left with the breech palpable above the pelvic inlet confirmed by x-ray examination. With the patient under light anesthesia, the obstetrician was able to flex the head by abdominal pressure until the fetus had assumed an upright position. Labor was induced medically. Progress was slow, and after 15 hours the patient's T. and P. began to rise. After 24 hours, irregularity of fetal heart evidenced fetal distress. Under ethylene anesthesia, dilatation of the cervix was completed manually, and a female infant weighing 6 lbs., 15 ozs. was delivered. The cord circled the neck once. No unusual hyperextension or stiffness of the neck was noticed. Mother and baby were discharged in good condition on the 11th post-partum day.

Case 2. A 28-year-old white primipara, was admitted at term, Nov. 6, 1938, 1½ hours after the onset of labor. Abdominal examination revealed a term pregnancy with breech presenting. A hard, ballottable mass was felt in the right upper section of the fundus with a smooth rounded surface palpable at a slightly lower level on the other side. Small parts could be made out on the left. The cervix was undilated. The unusual attitude was confirmed on x-ray examination, which showed a breech presentation with the back and neck in such extreme hyperextension that the head almost rested on the buttocks. Correction of the attitude was clearly impossible, and the infant was delivered without difficulty by cesarean section. Four loops of the cord were found drawn tightly around the baby's neck. The postpartum course was uneventful, and mother and infant were discharged in good condition on the 11th day.

A 30-year-old white gravida I whose estimated date of delivery was November 7, 1953, was admitted in mild labor, November 11. X-ray examination had revealed a term pregnancy lying in R.S.A. with the neck hyperextended so that with the mother standing the baby looked straight upward. A well-developed female infant weghing 5 lbs. 5 ozs. was delivered without difficulty by low, transverse cesarean section. The cord was found circling under the right axilla over the baby's forehead, holding the head in hyperextension. The pressure of the cord was sufficient to leave a temporary groove in the skin across the forehead. The head remained somewhat hyperextended for the first 24 hours. Mother and baby were discharged in good condition on the 5th postpartum day.

4. Melody, G. F.: *California Med.*, 68:378, 1948.
5. Taylor, J. C.: *Am. J. Obst. & Gynec.*, 56:381, 1948.
6. Dougherty, C. M., et al: Ibid., 66:75, 1953.
7. Wilcox, H. L.: Ibid., 58:478, 1949.

DISCUSSION

The incidence of hyperextension of the neck beyond the neutral position is difficult to estimate. It would appear that mild degrees of the condition are fairly common. Figures of Wilcox[7] and Brakemann[3] would indicate that 10 to 15% of breech presentations lie with the head between neutral and forehead extension. In probably 1% the condition is of such a degree as to be classified as face extension.

Laffont[1] attributed the position in his case to dolichocephalus; this abnormality was found also in the instance reported by Garipuy.[2] This, however, may be a result rather than the cause of the condition. Spasm of the fetal muscles, uterine or fetal anomalies, and uterine tumors are causes suggested by Dougherty.[6] Tension of the cord falling in such a way as to draw the baby's head backward was undoubtedly the cause in 2 of the cases here reported — 1 in which the cord circled the neck 4 times and 1 in which it was looped tightly under 1 arm and over the forehead.

The diagnosis is suggested in breech presentation when the fetal heart sounds, transmitted through the chest rather than through the back, are heard on the same side on which the small parts are felt. The diagnosis is confirmed by x-ray examination and, inasmuch as the condition probably is frequently unrecognized, routine x-ray examination of all breech presentations would seem advisable.

The seriousness of the condition is shown by the results in the few cases of face hyperextension reported in detail in the literature. The infant delivered vaginally by Laffont[1] died in a few hours from a traumatic lesion with hemorrhage around the 7th cervical and first dorsal vertebrae with a laceration in the dura 2 cm. in length exposing the cord. The baby in the case reported by Taylor,[5] delivered by cesarean, suffered intrauterine dislocation of the 1st, 2nd and 3rd cervical vetebrae on the 4th. The deformity was corrected by the application of a splint. In Melody's case[4] the baby was found to have bilateral posterior dislocations of the tibiae. In 1 of the 2 cases of face hyperextension reported by Wilcox[7] delivery was by vagina. The infant showed signs of asphyxia and there was a tendency for the head to return to its fetal attitude after delivery. A cephalhematoma was noted, and later it was apparent that there was a transection of the cord at the first thoracic vertebra. In his 2d case a normal infant was delivered by cesarian section.

Treatment of the condition must be individualized. Mild extension of the neck may be corrected by external manipulation provided examination of the fetal heart shows no evidence of distress during the process. If a neutral position can be produced, labor may be allowed to proceed normally. If, however, the retroflexion is of such a degree that correction is not feasible, delivery by cesarean section is indicated.

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2. Karnaky, K. J.: South. M. J.: 45:1166, 1952
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Philosophy of Feeding Babies

Cautious experimental introduction of new foods, and close cooperation between the mother, father and the pediatrician is recommended

GEORGE H. LEMON, M.D., *Toledo, Ohio*

For the baby's physical and mental development, our feeding has to incorporate ideas, attitudes and philosophies, as well as physical nourishment. The preparation of the parents begins with the first visit of the pregnant woman to the doctor's office and must be more detailed for first pregnancies. Too often we fail to consider the role of the father in the obstetrical case and his place in the rearing and feeding of his child, which often causes lack of respect of the mother for the father's ability to care for the physical needs of the child and results in emotional conflicts in the parents, which will later be seen in a nervous, feeding-problem infant.

The husband should accompany his wife in her prenatal visits. The presence of the husband in the examining room when his wife is being examined, together with a running explanation to both of the physiological principles of changes in the woman during pregnancy, impress on both the responsibilities of a parent. The husband given an explanation that the cervix must dilate to stretch over the head of the baby is sympathetic at the time of labor, and the wife will feel that her husband appreciates. The two will look forward to the rearing of their child as a joint enterprise of equal partners.

Before the mother goes home is the time for you to instruct her how she should permit her husband, friends and relatives to care for the baby while she acts as supervisor,

thus conditioning the baby to be happy and contented with anyone and in any place. Parents who play together and enjoy each other's company will set a valuable example for the child.

The parents should purchase a good book on how to train bird dogs, and study the principles of patience, repetition and single commands, and then read the application of these principles in a good child psychology book. The parents must set a good example for their child in love and respect for each other and establish a means of understanding between themselves and the child.

Breast feeding should be encouraged, especially with first mothers, for best nourishment of the child and for the mother to experience what it means to nurse a baby and, that she can function in the full role of a mother. If she is unable to nurse her baby, then she finds there are other methods of solving the problems of her new situation.

FEEDING INSTRUCTIONS

Babies differ as to food requirements, allergies, and in other important ways. The baby does not understand directions, so I like to have the father come in with the mother when instructions are being given on feeding the baby. Each parent should understand that when asking you for advice you will want to know:

1. How is the baby eating, what are they feeding him, and do they feel it agrees with him, etc.?
2. What are his bowel movements like as to color, consistency, frequency, etc.?
3. What is the child's urine like? Does it have an odor, is it irritating, etc.?
4. Does the skin have any rash? Where did the rash start? How did it progress, etc.?
5. What about the child's disposition? Is he happy, contented, or fretful? When did any change take place?

Explain to the parents that, if only one of the five systems seems to be abnormal, probably it is not of much importance; if two are changed, be suspicious that something is wrong; if three, they should consider the baby as sick and call the doctor. These simple criteria help the parents to give you a good history, and encourage them to observe their child.

The parents should be encourged to give you their diagnosis. If they are correct, you compliment them, and this helps to develop self confidence in them. If they are incorrect, you point out the error. All this encourages the parents to cooperate with you and reduces unnecessary calls. Best of all it gives the child his best chance of developing properly under your supervision.

ESTABLISHING A SCHEDULE

In order to meet the variations in the feeding needs of a child and the various attitudes of lay people, as well as doctors, the parents should not be given a rigid schedule to follow. If the baby wakes up at night, they probably should wake him up every three hours during the day to feed him until he permits them to sleep all night. Then stretch the schedule to adjust to his feeding demands. Explain to parents that, if the baby grows and develops on the schedule that they have established and which best fits the conditions of their home, we will assume that they are caring for the child properly. If at first the introduction of solid foods is not satisfactory, they must persist until the child learns to eat. The early introduction of solids seems to have the advantage of fewer feeding problems and less complaints about constipation.

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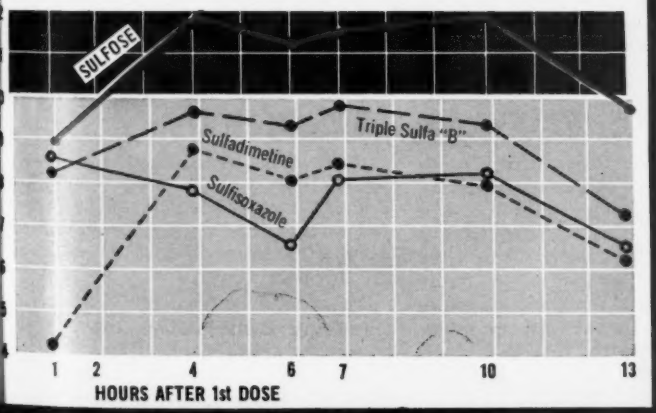
1. Berkowitz, D.: Antibiot. & Chemo. 3:618 (June) 1953

BLOOD SULFA LEVELS FOLLOWING ORAL ADMINISTRATION OF VARIOUS COMPOUNDS[1]



Wyeth

On breast feeding you can suggest to the mother that she feed the baby for five minutes on one breast and then on the second breast for 10 or 15 minutes longer. This empties both breasts and stimulates greater production of milk. Also, the breast that is traumatized by the baby when he begins to feed will be massaged by the latter part of the feeding process when the baby is not so anxious to eat. If the mother has a question as to whether he is getting enough to eat, she can judge that on whether the baby will sleep for three hours between feedings or she can prepare a formula and offer a bottle to see how much the baby will take. The baby can thrive on breast milk, or on part breast milk and part formula; the mother may decide after trial as instructed, how long she wants to feed it by this method. For the baby entirely on a formula, enough should be prepared so that the baby will leave a small amount in the bottle when he has stopped nursing. If the baby takes 4 or 5 ounces and is not satisfied, the formula should be strengthened gradually on a one or two day basis and results noted. In case it upsets the child, one can readily revert to the previous formula.

INTRODUCTION OF NEW FOODS

Of solid foods, cereal is usually offered first. Whether you start at birth, one week or three months, the introduction of a teaspoonful once the first day, twice the second day, and three times the third day begins to train to digest something besides milk and mark a start toward three meals a day. After four or five days of cereal, you may add a third of an egg yolk the first day, two-thirds the second and a whole egg yolk the third. Then after two or three days begin on fruits and vegetables. It doesn't make much difference what fruit or vegetable you start with, but each food should be given for three or four days before the next food is offered. Introduce a new food two teaspoonsfuls the first day, a tablespoonful the second, and what is left in the can or two tablespoonfuls the third day. Then go to another food for the next three days.

FOOD ALLERGIES

After five new foods have been introduced (in two weeks) begin feeding the first food with the sixth food, but always introduce five foods before you refeed any. If the baby does not seem to like the fruit or vegetable that is offered, consider that he might be allergic to it. Do not insist but wait six weeks and re-introduce it as a new food. If he appears to react again, wait two or three months before offering it again.

Introduction of new foods—fruits, vegetables and meats — permits a mother to begin feeding her baby the breakfast that he feels he should eat when he is six years old. That may be fruit, cereal and an egg. For lunch, fruit, vegetable and some meat, and for supper the same menu as for lunch. As the foods have been introduced and the baby grows a little older, she begins to season the foods slightly in accordance with how she will season them when she serves them on the table. In this way the baby is gradually adjusted from milk to pureed foods, to chopped foods, to seasoned foods, to the foods that the mother serves on the table.

Should the child break out with a rash during this progress method, the parents will be able to tell the doctor exactly which foods have been fed; and he will probably be able to pinpoint the offending food on the first visit.

This introduction of foods on a three-day basis enables the mother to say to the father, "Well, honey,

we have never fed the food before so just give a couple of bites this time." Then if the baby becomes ill, the mother can say, "The doctor told us it would be necessary for us to find out, and I didn't know whether it would make the baby sick or not so don't feel bad. At least we didn't give him very much so he won't be very sick." In the same situation, if the baby does not become ill, mother's opinion has not been discredited. Thus the harmony of the home is maintained, the respect of the husband for his wife is re-affirmed, and they know something more about their baby.

In summary, the doctor who feeds the baby emotionally, as well as physically, can better prepare the human organism for living, by helping to reduce the number of ulcers, high blood pressures and nervous breakdowns that are said to be closely associated with our modern civilization.

The Role of Hypertension in the Etiology and Prognosis of Coronary Occlusion

Each patient selected for the study had had many blood pressure determinations both before and after the onset of coronary occlusion. The series included 946 men and 214 women. At the time this report was compiled 797 were still alive. The results do not indicate that hypertension has any definite causal and prognostic relationship to coronary occlusion.

Sigler, L. H., *Ann. Int. Med.*, 42:369-376, 1955.

Pain: Etiological Factors, Clinical Entities, and Methods of Therapy

An analysis of organic and psychic pains, a division into separate types, and the detection and method of treatment of their origins

WARREN H. ASH, M.D.,* *Louisville, Kentucky*

No one definition of pain satisfies all requirements. The best overall definition is that offered by Wolff:[1] "The pain experience is first a sensation derived from noxious impulses traversing specific pathways. Such phenomena may be followed by the familiar and predictable feeling states and other reactions." There is a disturbance in the patient, either organic or psychic, which manifests itself by the symptom of pain. Oftener than he would wish, the practitioner must, through necessity treat the symptom rather than the disease state. It behooves us all to put forth every effort to discover and treat the basic disease, rather than the symptom of pain.

The symptom of pain differs with each person. The degree of stimulation which has little effect on one individual will cause another to complain bitterly. Emotional factors enter into the effect the pain will have on the individual. When one is tired, worried, or distressed, a painful episode may well assume extravagant proportions. Pain may cause personality changes which will vary from mild irritability to severe psychotic disorders.

PAIN THRESHOLD

The threshold of lowest perceptible intensity of pain[1] varies great-

* Assistant Professor of Anesthesiology, University of Louisville School of Medicine.

1. Wolff, H. G.: *Headache and Other Head Pain.* Oxford Univeristy Press. New York, 1948.

ly in different persons, and in the same person at different times. Personality traits, environment, fear, menstrual cycle, pathological factors of long standing, simple fatigue, distraction and excitement are a few influencing factors. Perhaps the most satisfactory method of determining the pain threshold is based on the fact that sensation elicited by heating the skin is a direct result of the change in the thermal gradients near the skin surface. This stimulus, measured in thermal energy, can be expressed quantitatively in millicalories per second per square centimeter (simplified to "dols"). Use of this method requires an expensive piece of equipment, the Dolorimeter. A simple, cheap method which might prove useful in practice has been devised. A piece of jagged sheet metal is placed on the arm and a blood pressure cuff wrapped around it. If pain is complained of at as low a pressure as 120 mm. of Hq., the diagnosis is a low threshold of pain; if the 200 mark is reached before producing pain, the threshold to pain is high.

TYPES OF PAIN—ANATOMICAL BASIS

Pain has been divided into cutaneous or superficial, and deep or visceral. The deep type (the more complicated) has been divided into three categories: true visceral and deep somatic, referred, and that due secondarily to skeletal muscular contraction.

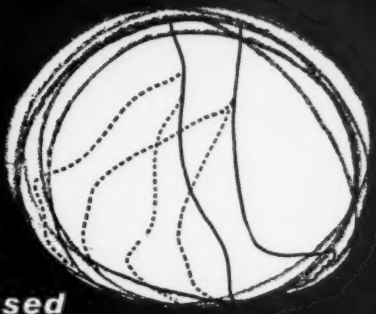
The first subdivision — true visceral and deep somatic — is the type of pain produced by gallbladder colic, angina pectoris or follicular rupture. It is pain which is felt at the site of primary stimulation. It may or may not be associated with referred pain. Injection of a local anesthetic drug at the site of stimulation, or blocking the afferent nerve supply to the part, lessens or cuts short this type of pain.

Referred pain may be experienced in the shoulder during biliary colic, in the arm during angina, or in the back during labor. True visceral or deep somatic pain may also be present. The significant point is that referred pain is not felt at the site of stimulation but rather at a distant point supplied by the same or adjacent neural segments.

Of the third subdivision — pain due to secondary skeletal muscular contraction — examples are intermittent claudication due to decreased circulation in the leg, torticollis due to muscle spasm, and trigger points due to muscular strains. This type of pain may be widespread and may be experienced in situations remote from the original source of painful stimulation. Simple infiltration of the affected muscle bundle will abolish the pain by disrupting the peripheral pain conducting mechanisms.

CLINICAL ENTITIES

Headache is probably the most common of pains. One factor may be ruled out at the outset: there is no referred pain to the head. Whatever pain is felt in the head originates there. Pain associated with neuralgias or neuritis of the intracranial nerves—V, IX, and X—are all interpreted by the patient as headache. This is also true of similar difficulties with cervical nerves, I through III, and the sympathetics which supply the head. Displacement of the venous sinuses or the middle meningeal artery also produces headache. Distension of the intracranial arteries, as with hypertension, will produce headache. Pressure, due to tumors, and inflammation of intracranial tissues may cause headache. A decrease in cerebral spinal fluid pressure will be much more apt to produce headache than will an increase in such pressure. Intermittent intracranial vasopasms



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1. Forsham, P. H., et al.: Paper presented at First Internat. Conf. on Prednisone and Prednisolone, New York, N. Y., May 31-June 1, 1955.

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are responsible for the type of headache called migraine. Other headaches are those ascribed to sinus disease, and to incorrect posture. Finding the cause is the prime desideratum.

PAINS IN THE NECK

Of neck pain, torticollis is the most common. There are three types. The first is spasmodic, cause unknown, occurs only after puberty. The muscles involved — the sternocleidomastoids, the deep rotators of the neck, and the rectus capitis — contract, usually jerkily, to pull the head to the side and tip the chin upwards. The contractions are usually not painful and stop during the sleeping hours. The best therapy is local injections of the muscles involved.

The second type is Volkmann's myositis of the sternocleidomastoid. This disease is occupational. Pain is felt upon attempting to pull the head back into normal position. There is local tenderness over the muscle. Physiotherapy is the treatment of choice once the causal factor is removed.

The third type of torticollis is wry neck — Volkmann's contracture of mild degree. One injection of a local anesthetic drug into the tightened and inflamed muscle brings relief.

PAINS IN THE CHEST

One of the common types of chest pain is angina. The usual treatment is nitroglycerin. For the few patients who become refractory to nitroglycerine, consider alcohol block of the first five thoracic sympathetic ganglia. Only patients who are incapacitated by their angina should be subjected to this procedure since it is, in itself, dangerous and the complication of alcoholic neuritis may produce greater pain than the initial angina. This relief from anginal pain means removal of the physiological warning of heart strain. Over-activity may result in instant, though painless, death. For pleuritic pain the best therapy is intercostal nerve block at the site of referred pain rather than the primary site. All too frequently, the chest is strapped into immobility with resultant increase in underlying disease despite pain relief.

In the elderly, herpes zoster may produce severe, incapacitating pain. Paravertebral somatic nerve block to the segments involved gives temporary relief when local anesthetic agents are used. Absolute alcohol injections give relief for months. In many cases, however, it becomes necessary to transect nerve roots or a portion of the cord.

PAINS IN THE SHOULDER

Shoulder-joint pain has a variety of types and high incidence, particularly in the elderly. Injury to the rotator cuff, first in frequency, rarely occurs in persons under 40, and is more frequent in males. Its most common cause is a sudden grabbing motion, with a jerk. Depression of the head of the humerus will produce severe pain shooting to the neck and down the arm. Injection of trigger points around the shoulder permits increased motion, thereby increasing blood supply. A series of four to five injections at 24-hr. intervals will usually suffice for a cure. In some instances surgical intervention will be required.

Bursitis comes next as a cause of pain in the shoulder joint. The acute type shows a rapid onset of pain in the shoulder and down the arm to the fingers. The usual cause is the presence of calcium in the bursa. Modes of treatment include heat, x-ray, washing out of the bursa and surgical removal of the calcium. A method of therapy too often overlooked is block of the suprascapular nerve. Injection of the nerve per-

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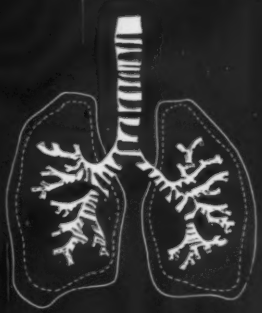

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mits the patient to move the arm without pain, thereby increasing the circulation with ultimate dissolution of the calcium. It is wise to warn the patient that the first one or two injections may be followed by an increase in the pain once the drug wears off. However, after two to four injections, a cure results. Trigger points about the shoulder should also be injected. Chronic bursitis will not respond as readily to nerve block therapy. However, a block will give temporary relief so that other therapy may be instituted with less pain to the patient.

Other causes of shoulder pain are the biceps tendon or bicipital groove syndrome, periarteritis or frozen shoulder, dislocation, fracture, incorrect posture, Pancoast tumor, diaphragmatic hernia, anginal, and biliary colic.

Among the less common pain entities is that of phantom limb. Preferred treatment of phantom limb pain is injection of these sympathetic nerves. On occasion thorough infiltration of the stump gives relief. A new form of therapy is that of pounding the stump to the limit of the patient's tolerance with a view to provoking a standard set of impulses and establishing a new pattern to the cortex.

NERVE BLOCKS FOR CAUSALGIA

Causalgia is a pain syndrome resulting from a penetrating wound involving a peripheral nerve. It most commonly follows an injury by a high-velocity missile. The distinguishing feature is burning pain, usually poorly localized, radiating, throbbing, or aching. The pain may begin with injury or be delayed several weeks. It may last up to two years, tends to increase in duration and in the area involved. The pain is referred to the distal part of the extremity and is more intense in the autonomous zone of the injured nerve. The slightest motion or draft of air may cause extreme pain. The patient may gingerly hold the extremity in one position for hours on end. The personality may be greatly altered by the constant, intense pain. Marked trophic and vasomotor changes in the painful part, are common.

Nerve block is always transitory and sympathectomy must be resorted to. Periarterial sympathectomy is successful in a fair number of cases. Neurolysis and nerve resection are practiced by some.

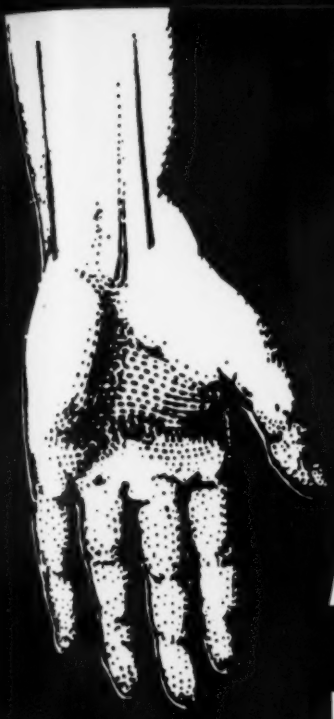
The minor causalgias, a term coined by Homans,[2] are burning, postraumatic reflex dystrophies. They differ from true causalgia in not being as severe and in having a definite vasospastic element. They may have nothing to do with peripheral nerves. Usually no more than three sympathetic nerve blocks are necessary for cure.

THERAPY OF PAIN

Abolition of the pain stimulus, if at all feasible, is obviously the first line of attack. In his eagerness to alleviate suffering, one may prescribe a narcotic before making a diagnosis. The not unusual practice of ordering a narcotic routinely when the patient is returned to bed may well lead to a higher incidence of postoperative respiratory complications. Pain should be evaluated in each instance, and if found to be actual, the first treatment should be an attempt to remove the stimulus.

The second attack upon the pain syndrome is interruption of pain pathways. Nerve block should be used before considering surgical division; but it should not be employed indiscriminately, and must be performed with careful attention to anatomical detail. Haphazard injection of a large volume of anesthetic

2. Homans, J.: *New England J. Med.* 222:870-874, 1940.



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solution into a general area of the body is to be condemned. Nerve block is effective as complete therapy in the neuralgias, herpes zoster, and other self-limiting diseases. It may be of great value in interrupting the "vicious cycle of pain" in diseases like causalgia. It gives pain relief until preparations for surgery are accomplished. Finally, it is of great value in selecting those patients who should have surgical interruption of nerve pathways from those whose suffering is psychogenic.

Several types of nerve block are of particular value to the G.P. Intercostal nerve block, when used judiciously, is of great value in the treatment of fractured ribs. When chest pain is severe, blocking the indicated intercostal nerves will relieve the pain and permit the patient to cough and breathe deeply, and so clear the tracheobronchial tree. Relief from shoulder pain particularly acute pain, can be obtained with a suprascapular nerve block.

Torticollis is usually treated with heat, may be with massage. Some cases can be brought to a speedy end with multiple injections of a local anesthetic, into trigger points. One injection, by interrupting a various cycle of nerve pathways, may produce permanent relief. A spray ethyl chloride over the affected part succeeds in some cases.

Obstetrical analgesia is dealt with in so many of medical publications of today as to require no discussion here.

SURGICAL MANAGEMENT

The autonomic system is to be considered in the question of pain therapy. Paralysis of certain portions of the sympathetic nervous system will relieve vasoconstriction, improve circulation, and relieve pain.

Surgical interruption of pain pathways may be accomplished at the peripheral nerve, the posterior roots, the spinothalamic tract, the sensory cortex, or the sympathetic chain.

ANALGESIC DRUGS

Raising the pain threshold is the most common approach in pratice by the use of analgesic drugs which depress certain brain centers. Only enough drug should be given to relieve from pain with a minimum of untoward results. We are still a long way from finding the perfect analgesic. Large quantities of analgesics hide the etiological factors.

Morphine, produces pain relief, not only directly, but also indirectly by euphoria. Anxiety and depression are relieved. A sympathetic attitude on the part of the doctor helps in relieving pain. The operations of topectomy and lobotomy exert their pain relieving effects by altering the reaction pattern. Patients still have the pain, but it no longer "bothers" them.

In certain instances it becomes necessary to completely deaden the perception of pain. Such a condition is met during the performance of surgery where general anesthetics are administered.

Mention should be made of two other measures. First is physical medicine. The application of heat, cold, massage, hydrotherapy, manipulation, and radiation all play a part in providing comfort and relaxation for the patient in pain. Second are various specific therapies in specific entities e.g., adrenocortical extract for arthritis, nitroglycerin for angina, colchicine for gout, Tolserol for spastic diseases.

Treatment of Peripheral Vascular Disease with Controlled Disintegration Capsules of Pentaerythritol Tetranitrate

One daily dose of this drug effects a vasodilating action, resulting from the sustained release of nitrite

H. I. BIEGELEISEN, M.D., *New York, New York*

In the treatment of peripheral vascular diseases a drug of sustained therapeutic action would be a boon. The present series of 30 cases of varied types affords evidence that such a drug is available.

The material used was pentaerythritol tetranitrate, a vasodilator of proven value with a good clinical background. The vasodilating action of this compound results from the liberation of nitrate which places it in the same group as nitroglycerine.[1] In the single-dose form pentaerythritol tetranitrate produces a slight decrease in pulse rate, slight increase in venous pressure initially and a small decrease in arterial blood pressure—all by arteriolar vasodilation. It is, therefore, a slow-acting organic *nitrate* releasing small amounts of *nitrite* for prolonged action. Sometimes it seems to slightly increase respiration also. The drug should be used with caution in glaucoma and in advanced anemias.

The capsule containing pentaerythritol tetranitrate* was made so as to release 10 mg. immediately, 10 mg. in 3½ hours and another 10 mg. in 7 hours. This method of administration tends to produce a smooth, prolonged response similar to that of the sustained release of modern depot injections.

1. Winsor, T. & Humphreys, P. *Angiology*, 3:1, 1952.

*Pentritol Tempules® Evron.


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The ages of the 30 patients ranged from 38 to 78 years; 20 were female.

The diagnosis: 2 cases of diabetic arteriosclerosis with leg ulceration; 2 of Raynaud's disease; 1 of Raynaud's disease with ulcerated lymph leg; 4 of arteriosclerosis obliterans; 2 of coronary sclerosis with arteriosclerosis obliterans; 3 of lymph leg with ulcer; 2 of coronary sclerosis accompanying varicose veins; 2 of periphlebitis; 2 of hypertension with varicose veins; 33 of hypertension with lymph leg; 1 of cerebral spasm with peripheral paresthesia; 2 of lymphedema with peripheral arteriosclerosis; and 4 of coronary sclerosis.

SINGLE-DOSE THERAPY

The capsules were given after breakfast, the dose 1 a day in all cases — equivalent to 10 mg. of the drug t.i.d. Placebo capsules were introduced into the regimen without the patients' knowledge every other week in order to exclude false results. The study was followed for two months in each case.

Blood pressure determinations were made before and during the treatment, urinalyses in a similar fashion for each patient.

It was noted that most patients felt uniformly well on this therapy. Patients who had been taking the drug in tablet forms t.i.d. got more relief from a single-dose capsule. This is difficult to explain unless there was a more even distribution of nitrite in the blood stream. Unfortunately, the scope of this study did not provide for blood analyses.

The best results were noted in patients exhibiting arterial spasm, notably in angina pectoris and cerebral arteriosclerosis. The number of attacks and degree of precordial pain were markedly diminished. Individuals with dizziness as a symptom also improved. In intermittent claudication some diminution in the sensation of coldness and weakness was noted.

Practically every patient with hypertension experienced a drop in blood pressure of 10 to 20 while on this medication. One case of a peculiar paresthesia of the right upper and lower extremity over years moderately improved under the medication. Inasmuch as this was tentatively diagnosed as a case of cerebral spasm, this was an interesting observation.

ADVANTAGES AND DISADVANTAGES

The only untoward results were a feeling of weakness in approximately 10% of individuals. The single instance of palpitation was ascribed to neurotic behavior, a diagnosis that was corroborated by its continuance with the placebo capsule.

Pentaerythritol tetranitrate in fractional release form exhibited all the beneficial effects of this medication, plus a smooth sustained clinical result that seemed to show a superior effect. The advantages of single-dose therapy are obvious. As a preventive of spasm in any arterial disorder it is an efficient preparation. It must be remembered that the side effects of the tetranitrate preparation are the same as in single dose tablet form.

CONCLUSIONS

1. Pentaerythritol tetranitrate controlled disintegration capsules are a convenient form for administering the drug as a single daily dose.
2. In this form there is a more even nitrite release as evidenced by clinical study.
3. For prophylaxis of arterial spasm this one-dose preparation can give all-day protection.

Non-Specific Therapy in Allergy: A Preliminary Report

Complete relief or substantial reduction of the symptoms in cases tested for this report should stimulate further investigation of this new procedure

JOSEPH ROVITO, M.D.,* *Morton, Pennsylvania*

Every physician is familiar with the various manifestations of allergy, but there is no general agreement as to the underlying alteration in physiology which gives rise to these symptoms, nor has treatment proved as successful as we could wish. Avoidance of the offending substances, and attempts to decrease sensitivity by injection or ingestion of offending material in increasingly larger doses have reduced the severity of symptoms. Antihistamine drugs have been found of help in many cases, but the relief in too many cases has been temporary and often accompanied by drowsiness.

CORTISONE AND ACTH

Cortisone and ACTH will usually control the acute symptoms, but these agents are expensive and dangerous to use indefinitely, and symptoms prove to recur when the drug is discontinued. However, the response to these agents indicated that the pituitary-adrenal axis must play a large part in allergic reactions, and suggested that some means could be found to provide more prolonged stimulation, either of the pituitary or of the adrenal glands, or to alter or suppress the ability of the tissues to react in the abnormal manner. We therefore sought such an agent.

We decided that an extract to be prepared by a special process from Toxicodendron quercifolia[1] might

*From the Yale Avenue Medical Center.

1. Prepared by Mulford Colloid Laboratories, Philadelphia.

PATIENT	AGE & SEX	FIRST VISIT	SYMPTOMS & DIAGNOSIS	TREATMENT	RESULTS
E.M.	20 F	8/26/54	Bullous dermatitis, severe, for one week. Pemphigus.	1.0 cc., repeated in 48 hours. (Did not return for others).	Complete relief within one week.
F.F.*	12 F	8/30/54	Hay fever, Aug. to Oct., for 5 years; ragweed sensitivity.	1.0 cc. daily for 3 days.	Complete relief for rest of season.
J. diL.[1]	15 M	9/ 3/54	Hay fever, Aug. to Oct., for several years. Eczematoid dermatitis of face, several months.	1.0 cc. daily for 3 days.	Complete relief of nasal symptoms. Skin much improved in four days; cleared completely.
H.Mc.T.*	31 M	9/ 7/54	Hay fever, Aug. to Oct., since childhood.	1.0 cc. daily for 4 days.	Improved after second dose; complete relief after four doses.
D.G.	32 F	9/17/54	Eczema of auditory canals with severe secondary infection. Severe reaction to penicillin previously.	1.0 cc. daily for 3 days. Penicillin after second and third injections.	Infection and eczema subsided rapidly. No reaction to penicillin.
B.A.	34 F	9/23/54	Hay fever (fall) since childhood.	1.0 cc. daily for 3 days.	Complete relief for rest of season.
R.D.	36 F	9/29/54	Acute cystitis and pyelitis; severe penicillin reaction previously. Allergic to milk and cheeses.	1.0 cc. daily for 2 days, with penicillin.	No penicillin reaction. Milk and cheese even in large quantities no longer cause distress.
S.W.[2]*	11 M	10/11/54	Asthma; sensitive to many foods.	1.0 cc. daily for 4 days, then 1.0 cc. weekly for 2 doses.	Unrestricted diet after 10/12; no asthma since completing the course.
P.W.[2]*	9 M	10/18/54	Nausea, vomiting and diarrhea after eating certain foods (skin tests positive).	1.0 cc. daily for 4 days.	Unrestricted diet after 10/19; no recurrence of symptoms.
J.diL.[1]	17 M	11/ 9/54	Eczematoid dermatitis of face, several weeks; acute secondary infection with lymphadenitis.	1.0 cc. daily for 3 days, plus penicillin-streptomycin.	Skin cleared completely; no recurrence.
E.D.*	8 mo. F	12/11/54	Eczema and bloody diarrhea for several months; sensitive to milk, cereals and vegetables; on special diets without relief.	1.0 cc. daily for 5 days; then 1.0 cc. weekly for 4 weeks.	Formed stool without blood on third day; unrestricted diet thereafter. Eczema disappeared.
R.C.*	4 M	12/20/54	Asthma. Skin tests positive, pollens and many foods.	1.0 cc. daily for 5 days; then 1.0 cc. every 2 weeks, 4 doses.	Improved within 48 hours; no asthma on unrestricted diet after course was completed.

*Previously under care of allergists; skin tests and conventional therapy.
1. Brothers; 2. Brothers. Other members of family had manifestations of allergy; not treated in this series.
NOTE. All of these patients were seen three months or more after treatment was started; none has had any relapse or recurrence of symptoms.

have the properties which we desired; a clinical trial substantiated our hypothesis. The results of treatment of the first 12 patients are given in the chart.

Our observations suggest that the milder symptoms, or sensitivity to a single antigen such as ragweed pollen, may be relieved by two to four daily injections; the more severe cases with multiple sensitivities seem to need more injections. It is desirable, and probably essential, to expose the patient to the offending allergens while he is receiving the course of injections; otherwise desensitization will not be achieved. Therefore additional "booster" doses at intervals of one or two weeks may be necessary to prevent symptoms from seasonal allergens such as pollens. The injections cause moderate pain and soreness, but this soon subsides. It has never been severe enough to cause the patient to stop therapy. No other side effects have been noted. Antibiotics should be given simultaneously to prevent the spread of infection, if present.

We realize that this is a new, radical and controversial approach to the treatment of allergic states. Extensive clinical and laboratory studies will be needed to determine the exact mechanism whereby these results are brought about. Our results were so dramatic that we are presenting this preliminary report in the hope that others will be encouraged to try this new therapeutic measure.

SUMMARY

Injections of a specially prepared allergenic extract of toxicodendron quercifolia have been followed by amelioration or complete relief of symptoms in 12 cases with various manifestations of hypersensitivity or allergy. We urge other physicians to try this new form of therapy.

Addendum: Since this report was prepared over fifty more patients have received this treatment with equally good results; details will be published later.

Tetracycline or Penicillin in Pneumonia

A comparative study of the efficacy of tetracycline given by mouth in a dosage of 4 gm. a day and of parenteral administration of aqueous potassium penicillin G in a dosage of 600,000 units a day in the treatment of pneumococcal pneumonia is described. Fifty seven patients were studied, many of whom had severe pneumonia. No differences in the therapeutic responses to the two drugs could be demonstrated, but the use of tetracycline was complicated by a significant prevalence of untoward reactions. There were 4 cases of diarrhea associated with staphylococci.

Frei, III, E., et al., *New England J. Med.*, 252, 5:173-176, 1955.

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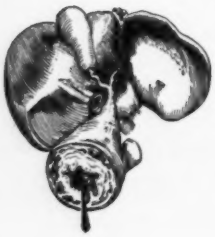

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Treatment of Cardiac Arrhythmias

A comprehensive analysis of the actions of various drugs in the treatment of these conditions with special emphasis on the use of digitalis

C. D. ENSELBERG, M.D., *New York, New York*

Treatment is necessary only when awareness of the arrhythmia results in apprehension or when frequent extrasystoles are associated with heart disease. Sedation with barbiturates is successful very often in the former case and occasionally in the latter. Quinidine is effective in many instances, regardless of the origin of the premature beats. In several cases increase in the frequency of extra-systoles for 1 to 2 hours after each dose disturbs the patient. It is not generally known that digitalis often abolishes premature beats even when there is no heart failure.

PAROXYSMAL TACHYCARDIA—SUPRAVENTRICULAR TACHYCARDIAS

Vagal stimulation by carotid sinus pressure, eyeball pressure, Valsalva maneuvers, or induction of the gag reflex should be tried as the initial treatment in every case.

When these measures fail, digitalis is the choice; next Lanatoside C intramuscularly, or Digoxin intramuscularly. New forms are less irritating locally, are given in fractional doses at intervals. Quinidine is possibly as effective as digitalis, but effective total dose is unpredictable. Treatment may take hours or even many days, and evidence of intolerance or toxicity may appear before the paroxysm is terminated. Barbiturates are often effective within a few hours, especially in patients with little or no heart disease. Morphine deserves much wider use. Neosynephrine is often effective, but must not be given hypertensive

persons. Recurrence can be prevented by digitalis or quinidine. Continue whichever had been successfully used.

VENTRICULAR TACHYCARDIA

The objective is to reduce the frequency rather than to insist upon abolition of all ectopic vent activity. If oral quinidine cannot be tolerated, or if greater speed of effect is desired, then intramuscular procaine amide should be used. The risk of intravenous use of either quinidine or procaine outweighs the advantage of greater speed of action.

Digitalis is contraindicated except when congestive heart failure is present. Vasopressor drugs may be necessary to maintain blood pressure, especially when procaine amide or quinidine is being used. Morphine intravenously has stopped the paroxysm in a few minutes.

ATRIAL FLUTTER

Digitalis is the choice, often necessary to be persistent in using it in liberal doses. Best to give fractional doses q. 4 to 8 h. until effective, or distinct intoxication ensues. The objective is to slow the *ventricular* rate, then digitalis dosage adjusted to maintain the rate. Sometimes digitalis leaf or digitoxin reduces rate better than digoxin.

ATRIAL FIBRILLATION

Chronic atrial fibrillation needs no elaboration. An *acute* paroxysm may occur suddenly in illness not associated with heart disease, and it may become dangerous. Digitalis is often ineffective in slowing the ventricular rate or in abolishing the arrhythmia; quinidine may succeed quickly. An expeditious method is to give a rapidly-acting digitalis glycoside parenterally. If neither significant slowing nor reversion to normal occurs within an hour, give quinidine at once. Thyrotoxicosis arrhythmia is usually difficult to treat. Recurrent paroxysmal fibrillation in otherwise healthy persons usually can be abolished by quinidine or procaine amide, and recurrences can be prevented by quinidine.

Conversion of fibrillation and maintenance of normal rhythm is less likely the more serious the degree of heart disease. The greater the dose of quinidine required to convert the arrhythmia, the greater the likelihood of recurrence despite large maintenance doses.

It is questionable whether benefits from anticoagulants during quinidine therapy outweigh the disadvantages.

ADAMS-STOKES SYNDROME

There may be extreme ventricular slowing, complete cardiac standstill, ventricular standstill, ventricular tachycardia, or ventricular fibrillation. The mechanisms may vary at various times. Injection of drugs is pointless, since the circulation is arrested. Recovery generally occurs regardless of the treatment. In many instances striking the chest with the fist or needle puncture of the right ventricle is effective.

In cases of complete heart block, to prevent Adams-Stokes attacks, epinephrine and ephedrine are often effective, atropine occasionally of value. The selection based on ECG observations of its effects on the ventricular response, avoiding any agent which results in frequent ventricular ectopic beats. Quinidine and procaine amide are dangerous.

DIGITALIS INTOXICATION

Stopping the digitalis and diuretic injections is generally followed by disappearance of toxicity. Where rapid toxic arrhythmias have appeared, the drug of choice is potassium, provided there is no significant degree of renal failure.

Manifestations of digitalis toxicity, such as incomplete A-V block,

sinus bradycardia, sinus arrests, A-V nodal rhythms, and interference dissocation, generally require no treatment. They are apt to become worse after potassium, but they may respond fairly well to atropine or methantheline (Banthine).

Arrhythmias during anesthesia, surgery and cardiac catheterization usually abate when proper pulmonary ventilation and blood pressure levels are maintained. Drugs used to prevent arrhythmias during cardiac catheterization and cardiac surgery fail completely to stifle the effect of mechanical stimulation of the heart. Drug action in the anesthetized patient is often strikingly different from that in the unanesthetized.

Arch. Int. Med., 95:123, 1955.

Hypodermic Injection Technique For Children

Injections are given in the deltoid region, and the majority are subcutaneous. When inoculating babies and very young children, and especially when the victim insists on watching what is going on, stroking the skin gently 2 or 3 times with the back of the needle before inserting the point often allays suspicion. Hold the syringe absolutely still for a second or two before pressing the piston, using meanwhile every available device for distracting the child's attention. A slight protusion and side to side movement of the tip of one's tonuge will often so astonish the patient that a c.c. more or less no longer matters.

Duke, H. L. *Brit. M. J.* 4920:1030, 1955.

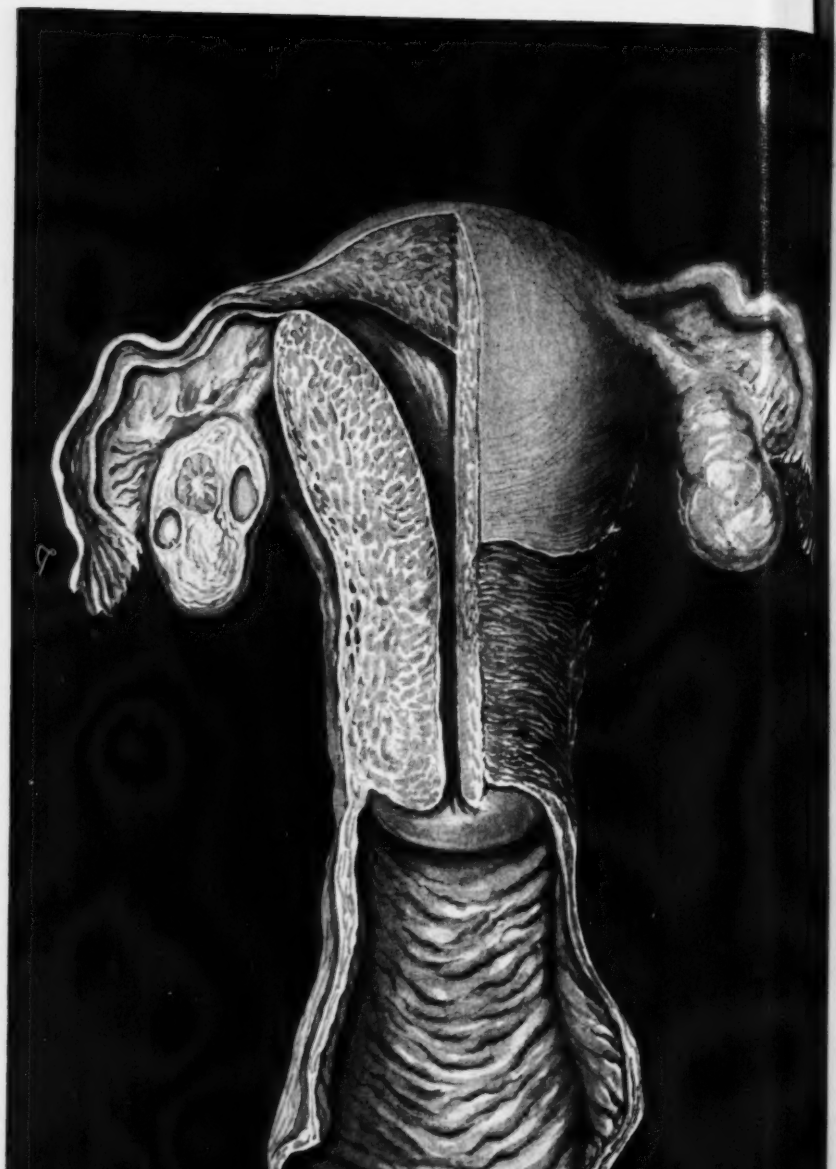
Roundworms Seldom Cause Symptoms

Of all worms Ascaris lumbricoides infest the greatest number of individuals. In only a very few cases is any harm done.

Passage of the larvae through the alveolar walls of the lungs may cause symptoms of pneumonitis with leukocytic response. Larvae may be coughed up in the sputum.

In the intestine infestation may cause mild colicky pain due to mechanical or toxic irritation of the mucosa, or balls of intertwined worms may cause obstruction, volvulus or intussusception. Perforation of any portion of the gastrointestinal tract may occur as a result of the migratory efforts of the worms.

Moore, Jr., M. P., *South M. J.*, 47:825, 1954.



Correction of the Anemia of Malabsorption Syndrome by Oral Administration of Cortisone and Iron

Maintenance doses of cortisone supplemented with ferrous sulfate has prevented the recurrence of anemia and the patient is now asymptomatic

M. L. KELLEY, JR., M.D., *Rochester, New York*

A 48-year-old housewife in good health until June, 1952, had 3 to 5 loose, light brown, occasionally frothy stools a day, typmanites and flatulence, loss of 12 pounds. In Dec. symptoms recurred, failed to respond to vitamin B_{12} and a dietary regimen; referred June, 1953, having lost 20 pounds.

The blood pressure was 80/60. hemoglobin, 7.6 gm. per 100 cc. RBC 3,920,000. During 1st week in hospital several temperatures to 102.2° F. occurred. A high-protein, high-carbohydrate, low-fat diet, oral multivitamin without folic acid or B_{12} and antispasmodic drugs. She also received two 500-cc. transfusions of whole blood. There was slight symptomatic improvement and little weight gain.

Discharged to Out-Patient Department on July 11, hemoglobin, 11 gm. Advised to continue regimen, plus ferrous sulfate 0.2 gm. t.i.d. Fairly well for 2 months, loose stools recurred, ankle edema, hemoglobin 8.4 gm. despite continuous ferrous sulfate. She refused hospitalization.

Oral cortisone (150 mg. daily) started Oct. 22, ferrous sulfate 0.2 gm. t.i.d. continued. After 4 days, striking increase in appetite and a sense of well-being, completely asymptomatic after 20 days, edema disappeared. Weight gain; reticulocyte, hemoglobin, serum protein,

prothrombin time, serum calcium levels also rose.

Bone marrow exam. 146th day; naruoblastic red series. Cortisone slowly decreased from 150 to 25 mg. a day. On the 190th day of treatment diarrhea recurred, subsiding when cortisone was increased to 37.5 mg. a day. The brown skin pigmentation slowly disappeared.

The patient has continued to take 37.5 mg. of cortisone daily. On this maintenance dose she feels completely well. Ferrous sulfate has also been continued. There has been no recurrence of anemia or morphologic abnormality of red cells since cortisone was added to the iron therapy.

A case of malabsorption syndrome with a hypochromic microcytic anemia, refractory to ferrous sulfate by mouth, is presented. When cortisone was added to the therapeutic regimen, the anemia was promptly corrected. Cortisone apparently promoted a marked increase in iron uptake by the cells of the intestinal mucosa.

New England J. Med., 252, 16:658-661, 1955.

Esophageal Speech After Laryngectomy

Thanks to Maj. Logan J. Rooney, a laryngectomized patient, most all of our such patients have learned esophageal speech. Major Rooney has a good esophageal voice and is a most patient teacher. For the past several years, we have had an excellent class in esophageal speech at the University of Tampa under the direction of the Vocational Rehabilitation Service. All of these patients, with Major Rooney, work together to help one another. Their morale is almost uniformly excellent. With rare exceptions, cured cancer patients are happy patients.

Farrior, J. B., et al., *J. Florida M. A.*, 41, 8:636-643, 1955.

Subacute Edematous Nephritis Treated With Malaria

A patient who showed poor response to other nephritis therapy, was infected with malaria and now is free from edema and has normal urine

RUTH PORTER, M.D., *London, England*

A boy born June 14, 1943, was first admitted to hospital in May, 1949, with a typical attack of Type I nephritis. After 2 months hospitalization, he was discharged symptom-free, with but a few red blood cells in the urine.

Patient was well until Sept., 1952, then readmitted with swollen feet and face and malaise; found to have moderate generalized edema, with normal blood pressure, no macroscopic hematuria. The urine had 250 mg. albumin per 100 ml. and an occasional red blood cell, but no casts; blood urea normal; total plasma proteins 5.3 gm.—albumin 3.1 gm., globulins 2.2 gm. A diagnosis of "subacute nephritis"; treated with a high-protein, low-salt diet, restricted fluids, and rest; edema persisted, urinary albumin rose to 1,200 mg. per 100 ml., and the serum albumin fell to 1.8 gm. %.

Two months later ascites and peritonitis developed which responded to antibiotic therapy, but original condition was as before. Patient was next treated with ion-exchange resins. These produced a good diuresis, and the edema disappeared, but the albuminuria and low serum albumin persisted. Treated as out-patient on Katonium and a high-protein diet for the next 6 months and patient remained fairly well although he continued to pass up to 1,000 mg. of albumin per 100 ml. of urine the serum albumin remained low, and he had slight edema and ascites at

that time.

In July of 1953, the patient was worse and it was decided to try malaria therapy. On July 15 he was infected, by mosquito bites, with benign tertian malaria. Twelve days later tertian fever and malaria parasites were found in his blood. Fever was allowed to continue for 13 days, after which mepacrine was given. During the time of his infection the edema and albuminuria increased, the blood urea rose to 165 mg. per 100 ml., and he was very ill. 16 days after the fever started he had a good diuresis, and 2 days later the blood chemistry started to return to normal. One month after the malaria, serum albumin had risen to 4 gm. %, and the urine was free from albumin for the first time for 11 months.

Since this time the boy has been free from edema, and his urine normal. He is now back at school and extremely well on normal diet and no special treatment.

The treatment of edematous nephritis with malaria was first reported independently by Byrne and Gardner, both in 1952.

Brit. M. J., 4901:1398-1399, 1954.

Hazards That Obstruct the Cure of Breast Cancer

At least 98% of patients who develop breast cancer discover the lesions themselves, and often this discovery is accidental. If every adult woman regularly performed a systematic routine of self-examination of the breast, a significant improvement in early diagnosis could be expected. Based on this reasoning, an intensive educational campaign has been attempted to teach women a correct routine of self-examination, and thus increase the chance of discovering breast tumors early.

In one large clinic, 4.9% of the total number of cancers of the breast were detected by routine examination of patients who came for consultation concerning wholly irrelevant symptoms.

Adequate examination should be a systematic, painstaking routine in which all four quadrants and the subareolar area of each breast are inspected, both in the supine and sitting positions. Breast contour, nipple level, areolar distortion and retraction, and skin changes with the arm in varying positions are significant features. Examination of the supraclavicular and axillary regions is then made for palpable lymph nodes.

If a tumor is discovered, the examining physician has reached the limits of tactile diagnosis. Biopsy should then be done in every instance, both for small tumors of uncertain nature and for large tumors that are unquestionably carcinoma. Furthermore, even in obviously advanced and inoperable cancer, an exact cytological diagnosis should be made before palliative treatment, either radiological or medical, is begun.

In a series of patients in Presbyterian Hospital, New York, in which a careful study of the manner of diagnosis was made, wrong medical advice had been given to 27% of patients by the first physician consulted. Much error in diagnosis results from the difficulty in differentiating cystic disease and cancer. Of every 100 women with breast symptoms 60 will have some form of cystic disease or mastitis, 20 will have cancer, 15 will have fibroadenomas, and 5 will have such lesions as fat necrosis, tuberculosis, and lipomata. In patients with cystic disease, areas of apparent induration may develop in the period preceding the menstrual cycle. If such indurated areas decrease in size in the postmenstrual phase, they are almost certain to be benign. In contrast, any area which does not decrease but increases in size may be cancer. Such lesions should be excised, and a microscopic examination made.

Biopsy, then, is the accepted method of procedure when a breast tumor is discovered. Aspiration or incisional biopsy may be used. Incision is preferable. A small incision exposes the tumor, and a small wedge of tumor tissue is removed. The entire tumor is excised for diagnosis if it is small. Wide excision of the tumor was once considered the proper procedure. Now it is believed that such excision cuts across lymph channels and even extensions of the growth, thus adding to the risk of metastasis. In the majority of cases, only 5 to 10 minutes are required to prepare a frozen section and obtain the pathologist's report; if carcinoma is present, a radical mastectomy is performed while the patient is still under anesthesia. On rare occasions when the pathologist cannot be positive about the diagnosis, the wound is cauterized and closed, and further surgery is postponed until paraffin sections are available, usually within 24 hours.

Cancer Bulletin, Texas Edition, 5:99, 1953.

About Arteriosclerosis

This disease is thought to be intermittent and it usually requires little therapy other than keeping the patient comfortable and happy

J. MURRAY STEELE, M.D., *New York, New York*

Recent evidence suggests that the atherosclerosis which causes *coronary thrombosis* is different from coronary arteriosclerosis and increasing at a time when the latter is decreasing. There is evidence that the disease is not a slowly progressive but an intermittent one.

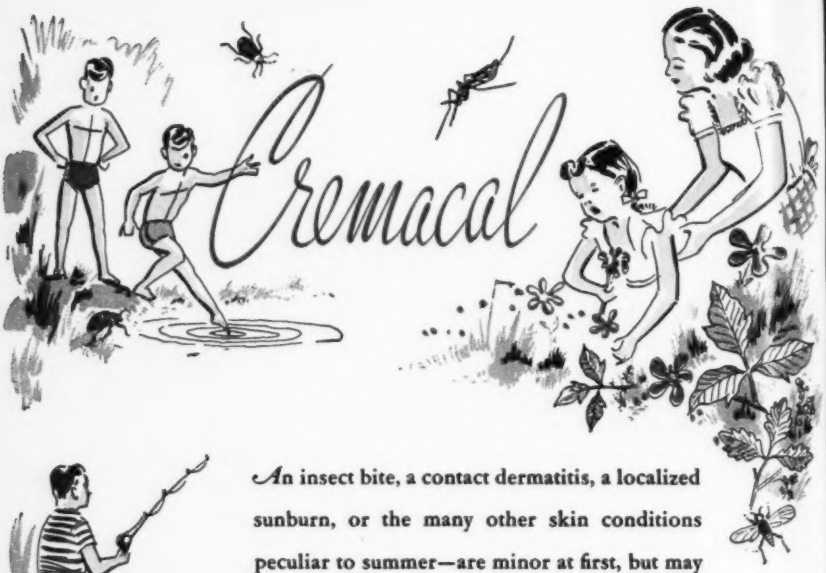
Arteriosclerosis may run a very benign course, or such a rapid course as to kill by cardiac infarction before the age of 30. If a coronary, a major cerebral, or a major mesenteric artery is blocked, the condition is ominous. A femoral vessel can be completely obliterated without serious symptoms ensuing.

Tests for "athergenic activity" are not well enough established to serve as a basis for beginning either dietary or other treatment as a prophylactic. Choline, inositol, and other lipotropic substances have not proved of value.

The vast majority remain symptomless in spite of demonstrable arteriosclerosis, so little need for therapy exists. One should interfere as little as possible with normal activities of life. An obese individual should be placed in a low-calorie diet, low in protein.

With the principle in mind of creating the least disturbance in the life of the patient, patients following a stroke or coronary occlusion should be gotten out of bed as soon as possible, sometimes not even put to bed. A happy patient sitting quietly in a chair, even after a coronary occlusion, has a better prognosis than an unhappy patient in bed.

N. Y. State J. Med., 55, 4:485-486, 1955.



An insect bite, a contact dermatitis, a localized sunburn, or the many other skin conditions peculiar to summer—are minor at first, but may become considerably aggravated by irritation from scratching or from contact with clothing.

CREMACAL affords protective action with cooling relief. It forms a tough protective film which resists scratching or irritation from clothing.

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Surgical Indications and Surgical Management in the Aged

Some helpful advice on the proper preparation of the patient for surgery, surgical procedures and the satisfactory rehabilitation of the patient

C. W. CUTLER, JR., M.D., *New York, New York*

We should never lose sight of the fact that some men are old at 50, some past 80 preserve their vigor and little damaged tissues. Promptness in meeting and relieving the surgical emergency is requisite. Next, the surgery must be the most direct and simplest procedure effective, performed accurately, directly and gently. Avoidance of trauma to tissue is more important than the speed of operation. Cyclopropane, with easy induction, good oxygenation, and rapid recovery is the anesthetic of choice. Ether, too, with Pentothal induction is safe and serves well. For support during surgery blood transfusion has no equal.

In fractures of the upper femur, the ultimate results when treated by nonoperative methods, are deplorable. But there are few among the old and infirm who will survive the pain and prolonged confinement to bed of sand-bagging, traction and plaster. Many more survive when we employ reduction and internal fixation. Most such patients, free from pain, are sitting out of bed within a day or two. The question is not, "Can the patient stand the operation?" but "Can the patient stand any other method of treatment?"

Before a non-emergency operation, in the hands of the internist, heart and kidney function may be improved, hypertension lessened, obesity reduced, vitamin and other

nutritional deficiencies corrected, diabetes brought under control, tertiary lues treated, anemia and blood volume deficits ameliorated, and the morale raised.

Infection and pneumonia may be forestalled or controlled by the use of the antibiotics, atelectasis overcome by bronchial aspiration. Careful hemostasis, without aid of the tourniquet, lessen the choice of thrombi and emboli. In case phlebothrombosis develops, use vein ligatation and/or an anticoagulant. Dicumarol, even in small doses, may cause grave, persistent hemorrhage.

Ample nutriment, the fostering of new interests, the regaining of physical strength and so of ability to care for themselves and to resume some degree of usefulness are the desired ends of this program. It is to be carried on by skillful dieting, by individual physical retraining, by the provision of recreation and religious opportunities, by the teaching and pursuit of manual skill according to the patient's ability and inclination, and above all by the development of an attitude of contentment, courage and hope.

New York State J. Med., 55, 4:489-493, 1955.

Preventing Heart Disease

Three types of heart disease predominate today — the rheumatic, the ischaemic, and the hypertensive.

Most useful in preventing rheumatism and rheumatic heart disease is the treatment of tonsillitis by sulphonamide or penicillin. No need to await proof that the tonsillitis is streptococcal. If such prompt treatment of tonsillitis were extensively practiced there is a reasonable prospect that rheumatic heart disease would in a quarter of a century be as rare as syphilitis aortitis is now.

A doctor under 45 who has not yet had any coronary disease has a 1 in 5 chance of developing it before the age of 65, and a 1 in 14 chance of dying of it before that age.

The level of blood cholesterol can be raised by a diet which contains much fat or which has a calorie content above energy requirements.

There seems to be a close positive correlation between blood cholesterol level and ischaemic heart disease. For nations or groups within nations, the better the diet the higher the serum cholesterol of middle-aged males and the more coronary disease.

Diabetes, myxedema and obesity are often associated with high blood cholesterol and with a high incidence of atherosclerosis and associated arterial occlusion and ischaemic heart disease.

It seems that alteration in blood coagulability plays just as important a part as atheroma of the vessel wall in promoting coronary thrombosis.

Arnott, W. M., *Brit. M. J.*, 2:887, 1954.

Laxatives in Acute and Chronic Constipation

An evaluation of seven different types of laxatives to determine their effectiveness in acute and chronic constipation

CHARLES A. BRUSCH, M.D., PRODROMOS N. PAPAS, M.D., GEORGE S. SPEARE, M.D., ALPERT P. CAMELIO, M.D., and TIMOTHY A. LAMPHIER, M.D., *Cambridge, Massachusetts**

Laxatives are generally used for two reasons: (1) To meet temporary requirements such as constipation, headache, nausea, dull eyes, sallow skin, etc. (2) For continued use, as in chronic constipation.

The continued use of laxatives interferes with digestion and assimilation, and is a frequent cause of malnutrition, secondary anemia, and weakness. Hemorrhoids, menstrual disturbances, established constipation, intestinal atony and many other pathologic conditions may follow their use.

Some objections to the continued use of laxatives for chronic constipation are:

1. They may increase tone beyond normal, narrow the lumen of the colon and lessen its capacity.
2. They may cause the liquid contents of the small intestine to rush through to the distal colon without proper digestion and absorption.
3. Harsh laxatives habituate the bowels to unphysiologic stimulation.
4. Compounds containing cascara and aloes are at times responsible for the development of Melanosis coli.[1]

Treatment may be considered as: (1) correction of etiologic factors;

*From the Department of Gastroenterology and Proctology, Brusch Medical Center, Cambridge, Massachusetts.

1. Speare, G., *Am. J. Surg.*, Nov., 1951.

(2) establishment of proper habits of elimination; (3) exercise; (4) diet; (5) proper type of laxative.

Two hundred and sixty-one patients, of ages 11 to 87 years, were employed in a 6-month study. Each patient had a history of acute or chronic constipation.

A complete history was obtained on each patient. Physical examination included record of height, weight, blood pressure, blood count. urinalysis, heart, abdomen, intestines, rectum, gallbladder and extremities.

Seven different forms of laxatives were compared. One of the laxatives was a tablet made of pure vegetable content and plant herbs, labeled "G."*

The "blindfold" technique was employed throughout the study, each product dispensed in either a plain container or bottle labeled simply A, B, C, D, E, F, and G.

The subjects were divided into 7 groups and kept on the medication throughout the study.

Each subject reported to the clinic every 7 days for re-examination. Patients kept a record of the frequency and nature of their movements following administration. Each subject was instructed to note the time elapse between medication and the first bowel movement.

Under ideal conditions, bowel movements should be once, or possibly twice, per 24-hour period.

The patients and their stools were examined to determine whether the action took place in the upper or lower bowel, or in both bowels.

An evaluation of the various products showed the average laxative produces from 23 to 35% side effects, with the exception of preparation "G," which produced 7% side effects. Side effects included abdominal pain, nausea, dysentery and weakness.

*Product "G" supplied by Olive Tablet Co., Columbus, Ohio.

TABLE I

EFFECTIVENESS OF EACH PREPARATION TESTED

A	52%
B	47
C	55
D	51
E	49
F	53
G	87

SUMMARY

This study of 261 subjects was undertaken to assess the effects of 7 forms of laxatives in cases of acute and chronic constipation.

Results indicate that:

a. A satisfactory laxative should be effective within 1 to 3 hours after administration, produce no more than 2 bowel movements in a 24-hour period, work in the lower bowel, produce stools of regular consistency, and a minimum of side effects.

b. In this study, product "G," appeared superior to other products in all categories tested.

c. Preparation "G" produced stools of regular consistency, its action appeared restricted to the lower bowel and side effects were minimal.

Multiple Myeloma Treated With Gratifying Results

Reports show patients benefit from this treatment, and, in some cases, the disease was significantly modified

JAMES INNES, M.D., *New York, New York*

Seventeen cases of advanced multiple myelomatosis were treated with small doses of urethane and an oral preparation of nitrogen mustard. The results indicate that significant palliation was obtained in many cases treated and that in some the progress of the disease was modified.

In the dosage employed such therapy appears to be free from toxic manifestations and suitable for outpatient administration over long periods.

Every 4 to 8 weeks blood and routine examination sufficient to allow control of therapy was made.

Of the 15 patients who had intractable bone pain, 9 were greatly relieved. These 9, who had all been bedridden, were so improved in general health as to resume household duties or light work.

A boilermaker, aged 60, admitted to hospital on 20.4.51 because of back pain for 4 months and of a recent injury to ribs. X-ray showed a pathological fracture of the 9th left rib, typical myelomatosis in spine, skull and pelvis. Hemoglobin 78%, sedimental rate, 150 mm. per hour, plasma albumin 2.4 gm., globulin 8.1 gm. per 100 ml. First 3 weeks in hospital his condition worse—severe bone pains, fall in hemoglobin to 40%. For 4 weeks given oral urethane alone, 6 gm. daily; caused vomiting. In spite of transfusions he remained anemic and the plasma globulin level rose to 9.5 gm. During

next month given oral N mustard alone with no improvement; further transfusions.

Urethane 3 gm. and R. 151.50 mg. given daily; in one week relief of bone pain, anemia began to improve. After 3 wekes' treatment he was fit for discharge. Dosage reduced because of leucopenia, but continued both drugs until Dec. 1952—aver. dosage urethane 1 gm. and R. 151.50 mg. daily.

Returned to work in Oct. 1951 and has been working full time as a riveter until the time of writing. Had pneumonia in Jan. 1952, and sustained a further fractured rib in April, 1952, but recovered quickly from both. Blood 30.1.54, normal. Bony healing in pelvis and other bones.

Blood, 10, 3:252-258, 1955.

Cancer of the Bladder

In cancer of the bladder the results of treatment are generally poor. If diagnosed before invasion of the vesical wall and involvement of adjacent structures, a high cure rate may be obtained.

Hematuria is the first indication of disease in 75% of the cases; it may be slight or profuse, but often is intermittent or not grossly discernible. The hematuria may occur early or late in the course of the disease and may be painless, although severe pain can result from obstruction and the passage of blood clots. Slight hematuria frequently disappears spontaneously and recurs more profusely at a later time. Often accompanying the hematuria is frequency of urination, dysuria, and urine retention.

Fever and pain in the flanks may be the initial symptoms. The first symptoms may be those of disseminated disease—bone pain caused by metastasis, and rectal tenesmus and pelvic pain caused by local extension.

Hematuria means bladder cancer until proved otherwise.

Cancer Bulletin, 7:22-25, 1955.

Relief of Symptoms of Menopause

Recognizing that menopausal symptoms may be caused or aggravated by anxiety and tension, 30 such patients were treated over an 18-month period with education and medical sedation.

The patient was told to regard her symptoms as largely normal and not something about which she need be anxious; that she might be "entering a period of greater contentment and accomplishment than ever before." Time was taken to uncover complicating emotional factors.

Seconesin®, a combination of mephenesin and secobarbital, is a "safe, daytime sedative." For those patients who had difficulty in sleeping, Carbital was prescribed.

Infrequently, estrogens were used for a short time to control vasomotor symptoms.

Seconesin was usually prescribed one tablet t.i.d. p.c. It relaxes and calms without making patients sleepy or drowsy, there are no known contraindications, no serious or undesirable side effects, and patients do not develop a tolerance to it.

Friedlander, H. S., *Postgraduate Med.* August, 1955.

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*Trade-Mark Reg. U. S. Pat. Off.; The Upjohn Company, Kalamazoo, Mich.

Drug Treatment of Hypertension

Women tolerate high levels of blood pressure better than men, and in elderly persons surprisingly high pressures are often compatible with good health for many years. This is specially noticeable when the pressure has risen slowly over many years.

Patients with hypertension not attributable to any other disease may be considered in 3 groups: (1) those with labile diastolic pressure below 120 who show no signs of complications; (2) those with sustained diastolic pressure around or over 120 plus developing or established complications (encephalopathic attacks, cardiac enlargement, and retinitis), but normal renal function; (3) patients with diastolic pressure rising to 130 or higher.

In the first group the prognosis is good, and the only treatment needed is reassurance and mild sedation. If obese, the patient should be encouraged to lose weight. Headaches are likely to be due to anxiety. For patients in the second group, effective reduction of b.p. is desirable; while in the 3rd control is a matter of vital importance and great urgency.

For these the methonium drugs offer the best prospect of relief: they cause vasodilation and hypotension by blocking transmission of nerve impulses in autonomic ganglia. A subcutaneous injection of an adequate dose will reduce the b.p. towards normal for 2 to 3 hours—an effect which the upright position helps to increase.

It is possible to obtain a longer action by using a similar compound Ansolysen dissolved in 25% polyvinyl pyrolidine to which 0.1% ephedrine has been added.

In a recent issue of this journal results in a series of 250 cases treated with methonium compounds for periods up to 3½ years were reported. Out of 28 of these patients with malignant hypertension, 21 are still living—an average survival time of 22.8 months. This investigator also noted that an attack of hypertensive left ventricular failure can be terminated by fractional *IV* injection of hexamethonium. Among the notable results of reduction in b.p. are the disappearance of papilloedema, a decrease in the size of the heart, improvement in the ECG, and an easing of headaches.

Treatment with the methonium compounds is far from easy. The drug has to be given by subcutaneous injection 2 or 3 times daily, and careful observation is essential in the first weeks of treatment, since tolerance quickly develops. Side effects—such as giddiness and faintness on standing due to postural hypotension, dry mouth, difficulty of micturotion, constipation, and visual disturbances caused by vagal inhibition are common. They can be mitigated by careful control of the dosage and by lying down for half an hour after the injection.

Patients should always be admitted to hospital for initial treatment with hexamethonium bromide, and they have to be watched carefully after discharge, although they can, like diabetics, be taught to give their own injections. When renal function is impaired the excretion of hexamethonium bromide is retarded, and so injections are required less often. Dyspnea, with organized fibrinous pulmonary edema, has been observed in 3 cases.

There is clearly a need for a safer hypotensive drug which is easier to use and can be given by mouth. The alkaloids of veratrum viride, which cause a reflex vasodilation, gave good results in only 20% of cases. The frequent occurrence of vomiting, sweating and other side effects greatly limits the usefulness of these drugs.

Leading Article, *Brit. M. J.* 4876:1424-1425, 1954.

Anesthesia in General Practice

Premedication and preparation for children and adults before anesthesia, and the emergency and routine anesthetics are discussed

A. B. BRAY, M.D., *Franklin, Tennessee*

It is important that the anesthetist talk with the patient, preferably the day before, to answer his questions and to put his mind at easte. To the patient or the patient's parents, explain what is going to happen.

Premedication for adults, scopolamine gr. 1/150 and Demerol 100 mg.; for old people or the poor-risk patient scopolamine gr. 1/300 and Demerol 75 mg. For age 5 years and under and 75 years and over, use atropine, not scopolamine. If a child is terrified of hypos, Seconal or Nembutal may be given by rectum. All premedication is given intramuscularly 45 to 60 min. before the anesthesia is begun. In emergency surgery, if there is food in the stomach, spinal anesthesia should be used if not plainly contraindicated. In any case if there is food in the stomach and the operation can possibly be delayed, wait at least 12 hours to allow the stomach to empty itself.

A hemoglobin of 11 gm. should be required. If much blood loss is anticipated, cross-matched blood should be ready. In emergency, Type O blood can be given regardless of blood type of the patient.

For small children Vinethene induction is used. It works more rapidly than ether and must be given much more slowly. After the child is no longer aware, drop-ether is started, allowing sufficient air—no heavy layers of gauze, no towels around mask. It takes 10 to 15 min.; ether, dripped rapidly, not poured, and well distributed.

Occasionally give Pentothal rectally to children when full anesthesia is not needed; only enough to produce a light sleep. Pentothal rectally is not for setting fractures. The dose of 2.5% solution rectally is 0.6 to 0.8 cc., per pound of body weight.

J. Tennessee M. A., 48, 4:130-135, 1955.

Giving Oxygen by Needle Puncture in Asphyxia

The following method of giving oxygen is suggested in the treatment of some cases.

The method consists in the administration of oxygen *via* a fine cannula, such as is used in "lipiodol" bronchography, which is passed through the crico-thyroid membrane. The cannula is attached by a suitable mount to the delivery tube from an oxygen cylinder.

The use of a tenotome for skin-puncture makes the procedure easier. When the cannula has been inserted, the preliminary passage of a fine polythene tube well down into the trachea will indicate that the end of the cannula is free within the lumen of the trachea, thereby obviating the risk of surgical emphysema. Oxygen may be administered through this fine polythene tube, but not so freely as through the lipiodol cannula itself.

Apart from laryngeal obstruction, the method might well be found useful in cases of drowning and coal-gas poisoning, and the polythene tubing method of administering oxygen in cases of clinical anoxemia. A convenient pack containing a baby oxygen cylinder, trocar and cannula and fine polythene tubing, etc., could easily be assembled for first-aid work.

Magauran, W. H. B., *Brit. M. J.*, 4920:1033, 1955.

Results With C.V.P. in Hemmorrhagic Cystitis Compare Favorably With Sulfonamide

A combination of water-soluble natural citrus bioflavonoids with ascorbic acid (C.V.P.®) was used in 19 patients with hemorrhagic cystitis and trigonitis. The results of C.V.P. therapy "compare favorably" with those obtained with the sulfa preparation, sulfasoxazole. There were no side effects with C.V.P., but nausea and gastric irritability were frequent with the sulfonamide.

Urine cultures became negative and pus cells and red blood cells disappeared within 5 days, average. The well-being of the bioflavonoid-treated patients was more pronounced. The dosage of C.V.P. ("citrus vitamin P") was 2 or 3 capsules (each containing 100 mg. of bioflavonoid and ascorbic acid) at 8 a.m., 12, 4 p.m. and 8 p.m. for 3 or 4 days.

In inflammatory conditions of the bladder mucous membrane, according to the author, there is a localized capillary syndrome, with abnormal capillary permeability and bleeding. This promotes and aggravates bacterial infection and the inflammatory process. C.V.P. "drastically reduced capillary permeability" and the protein leakage into the tissues which occurs in inflammation.

Saelhof, C. C., *Amer. J. Dig. Dis.* 22:204, 1955.

Evaluation of a Drug Therapy in Arthritis and Rheumatoid Conditions

A brief resume of the response to a new therapeutic agent in the management of various rheumatic disorders

F. W. BARDEN, M.D., *Biddeford, Maine*

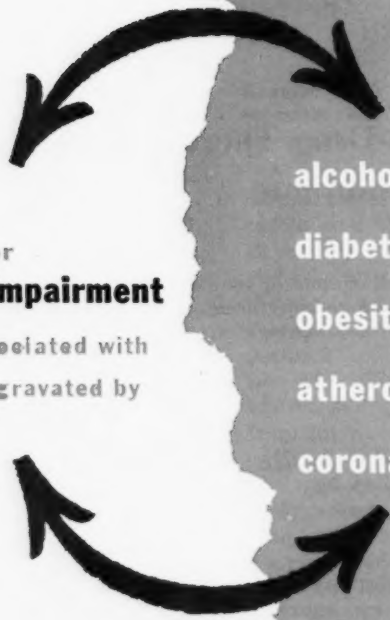
It was thought that the personal equation based upon clinical impression could be minimized by a cooperative study in which the participants were representative of different groups—a G.P. doing surgery, a G.P. anesthetist, a G.P. giving full time to the industrial field. Previous experience of each physician in the management of rheumatic disorders with a wide variety of therapeutic agents served as controls.

Over a period of 8 months 80 patients, aged 24 to 75, presenting the typical rheumatic and arthritic syndrome for which salicylate therapy is generally prescribed, were examined and placed on Pabalate* therapy. Many patients gave histories of previous treatment for arthritis with the usual wide variety of drugs and physical measures. There had been varying degrees of disability, and the severity of symptoms in a considerable number of cases was such as to require hospitalization or home confinement.

The combined impressions gained as a result of this study is presented as a brief summary.

The response to Pabalate in the treatment of rheumatic disorders is superior to straight salicylate therapy. The relief and improvement were often dramatic, at other times the patient seems somewhat refractory to all treatment.

* Each enteric-coated Pabalate tablet contains 0.3 gm. (5 gr.) each of sodium salicylate and sodium para-aminobenzoate.
Pabalate, used in this study, was supplied by the A. H. Robins Company, Richmond, Virginia.



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Many patients who failed to respond to physio-therapy had considerable relief from Pabalate medication.

In the arthritic group of patients satisfactory relief was very often obtained with Pabalate when other forms of drug therapy had failed.

No unpleasant side reactions or evidence of salicylism were noted in patients receiving Pabalate. This suggested that therapeutic synergism results from the concurrent oral administration of para-aminobenzoates and salicylates, but that the effect of the two drugs is not additive in the production of undesirable or toxic reactions.

The superiority of Pabalate over straight salicylate therapy would seem therefore to rest in its higher "therapeutic index."

J. Maine M. A., 46, 4:99-101, 1955.

Malignant Soft-Tissue Tumors of the Extremities

Squamous - cell carcinoma is the commonest soft- tissue malignant tumor of the extremities, and occurs most frequently in males in the 7th and 8th decades. Of 43 patients with this neoplasm, 25 lived 5 years and were considered successfully treated. No patient with lymph-node involvement at the time of admission survived 5 years. Distant bone metastases were found in 2 of the patients at post-mortem.

Bull. Cancer Progress (N.C. Div.), 4, 6:185, 1954.

Multiple Sclerosis

Similarity of symptoms may lead to an erroneous diagnosis; improvement is possible with encouragement and utilization of drugs and physical therapy

Z. R. MILLER, M.D., *Saint Paul, Minnesota*

The major criteria for diagnosis are wholly clinical. Rarely does the initial attack occur before the age of 20 or after 40. History of remissions and exacerbations with gradually increasing disability is an important criterion. Another is evidence of lesions, based on neurologic signs that require scattered foci. Some cases lack these criteria: the steady progressive, the fulminating, and the single-focus variety.

The disease may begin with a single transient symptom—as visual blurring, diplopia, weakness or awkwardness of limb, or numbness, this followed by an interval of well-being for weeks, months or years, before a second attack. Often the middle-aged person in an acute attack may have forgotten a former bout of neurologic dysfunction. The spinal form may reveal only a steadily progressive spastic paraparesis. Rarely the onset is fulminating, the symptoms show wide dissemination of lesions, and death occurs early. As the diagnosis usually carries a grave prognosis, each case should have critical study before labeling, especially cases that do not fit in the "time and place formula."

The greatest harm comes from diagnosing "multiple sclerosis," cases of myasthenia gravis, chronic subdural hemotoma, benign spinal-cord or brain tumor, or other entities amenable to treatment.

Five cases—2 with cervical-cord tumors, 2 with brain tumors that involve the brain stem and cranial

nerves, and one with myasthenia gravis—illustrate that, even with the history of remissions and exacerbations and suggestion of multiplicity of lesions, the diagnosis of multiple sclerosis requires constant scrutiny. Four of these patients had a change of diagnosis and had proper therapy and in 3 of these (myasthenia gravis and 2 cord tumor cases) the results were most gratifying.

It is difficult to evaluate because of the uncertainty of the course, and the natural tendency to remit. These patients look to the general practitioner for hope and help. Sustained interest of the doctor, encouragement and symptomatic treatment will result in many satisfying improvements.

During an acute attack a combination of oral multiple vitamins, including large extra doses of thiamine; intravenous slow-drip histamine infusion; Vitamin B_{12}, 1000 micrograms intramuscularly, and physical therapy as required is a program to be followed for 2 to 4 weeks. If unsuccessful, other agents named in new texts are to be given a trial.

Corrective physical measures, along with the drug therapies aid in the prevention of joint fixation and tissue breakdown, keep the protein balance positive, teach the patient how best to utilize his residual capacities. Constant vigilance is required to prevent immobilization and its evils.

The program for each patient must be positive and individual, utilizing the various drugs available and exploiting corrective mental and physical therapy to its fullest extent.

Minnesota Med., 38, 4:237-244, 1955.

Quadratus Lumborum Myofasciitis

The quadratus lumborum is *usually* involved in low-back pain, regardless of the cause.

Pain is frequently acute unilateral spasm of the muscle, may pull the patient over in the lateral position, simulating disc disease. There is tenderness over the muscle with reproduction of the pain on palpation. Trunk rotation and hip hiking on the affected side accentuate the pain.

Locate the 12th rib, pass the examing finger laterally over the erector spinae at the insertion of the quadratus lumborum. When the muscle is in moderate spasm, the lateral margin is easy to palpate.

Tender areas located in the lateral border of the muscle, which reproduced or accentuated the pain, were injected with 1 to 2 cc. normal saline, through a 26-gauge ¾ in. needle. If no change of the pain pattern the injections were discontinued. Heat, and massage followed the injections. Many cases, particularly unilateral back pain, responded to 1 or 2 injections. Very few needed more than 4 or 5.

The quadratus lumborum is a neglected muscle as to anatomy and function. In this muscle trigger points are frequently the source of noxious stimuli responsible for low back pain.

Results are dramatic and gratifying to patient and physician alike when the syndrome is limited to myofasciitis. No complications result from the treatment technics employed. When the patient fails to respond to treatment, important clinical evidence suggesting associated disease has been obtained.

Sola, A. E., et al, *Northwest Med.*, Oct., 1954.

Ophthalmoscopic Aids in Diagnosis and Management of Hypertension

The hypertensive changes are in 4 grades:

Narrowing plus irregular spasm of the arterioles is easily picked up when the eye grounds are routinely examined in the office.

Narrowing and irregularity in calibre, plus the flame-shaped hemorrhages and exudate.

Narrowing, irregularity, hemorrhages, and exudate, plus edema of the nerve head; the latter being evidenced by indistinct margins, and perhaps elevation of the disc.

The first arteriolar sclerosis change recognizable is a beginning whiteness of the vessel wall. More advanced changes than Grade I are termed Grade II.

"Copper wire" appearance of an arteriole is the color of the vessel wall and of the column of blood. Compression of the veins by the arterial wall at their crossings is more obvious.

The "silver wire" appearance is due to deposition of hyaline material so that the blood column is obscured, and the color is due to light reflected from the white wall. In this stage there is compression of the veins to a point of complete disappearance at the crossing.

Dennis, R. H., *J. Maine M. A.*, 46, 2:37-39, 1955.

Some Common Skin Diseases

Impetigo is a superficial cutaneous infection due to staphylococci, streptococci or both; it is spread by autoinoculation. The lesions, occurring most commonly on the face, neck and hands, have an erythematous halo and the vesicopustules are covered by yellowish crusts. Therapy includes correction of systemic contributory factors and daily cleansing of the skin with rubbing alcohol or application of 3% ammoniated mercury ointment. Sulfathiazole ointment 5%, or Chloromycetin cream, applied twice daily after cleansing may be useful. The more severe cases should be treated with penicillin, 300,000 units IM each day for 3 to 5 days.

Folliculitis is a disease of bacterial origin involving the hair follicles. Hairs loosen and fall, the follicles atrophy and new hairs are now produced. Mic. pyogenes, albus and aureus are usually causative. A daily penicillin injection for 3 to 5 days is required. Warm moist packs and 5% sulfathiazole ointment or Chloromycetin cream are beneficial adjuncts.

Urticaria usually follows an antigen-antibody reaction. Antihistaminic agents such as Benadryl or Ambodryl relieve many cases. Caladryl and Caladryl cream or Ziradryl cream may alleviate itching. For prompt relief, give parenterally 1 to 5 cc. of solution of Benadryl hydrochloride or Adrenalin therapy.

Therapeutic Notes, 61:271, 1954.

Differential Diagnosis of Vertigo

Vertigo is a common complaint; often the diagnosis is difficult. If the patient is *positive* that it is the sensation one gets after being on a merry-go-round, or of rotation of the field of vision before the patient's eyes, one can be certain that it is vertigo.

Postural vertigo brought on by sudden movement of the head is usually mild and brief but may be violent and accompanied by nausea and vomiting. Have the patient assume the provoking position, then nystagmus proves the diagnosis.

In tabes dorsalis and peripheral neuritis the sense of balance is lost in a fashion, but there is no apparent rotation of objects in space. Postural hypotension, aortic stenosis and Stokes-Adams syndrome produce syncope rather than vertigo. Thorough history-taking and complete examination will recognize petit mal, glaucoma and multiple sclerosis.

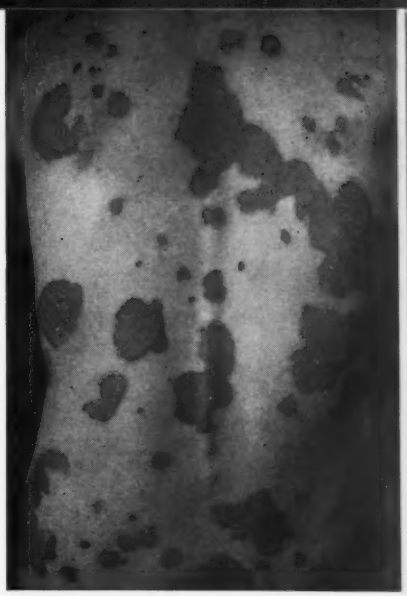
Gulotta, C. J., *J. Louisiana State Univ. School Med.* 107:45-49, 1955.

It May Be Scurvy—Not Old Age

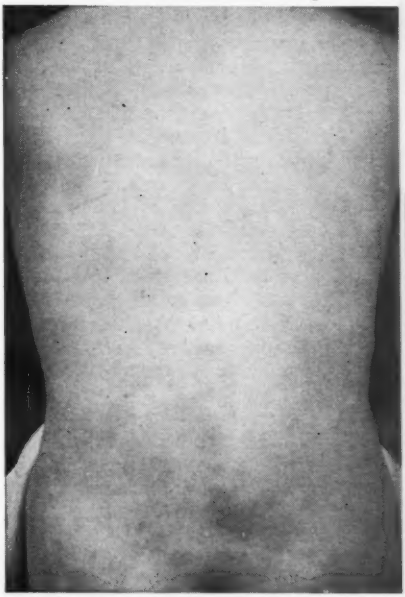
Vague, general ill-health wrongly attributed to "old age," may be caused by scurvy. For every case of florid scurvy that comes under medical care, there are many minor ones that are never seen or never recognized by the doctor. Scurvy is preventable, many elderly persons grow indifferent to the simplest dietetic precautions. 52 of 58 whose records gave details of domestic circumstances lived alone or in lodging houses and did their own cooking.

Thompson, T. J., *Glasgow M. J.* 35:363, 1954.

ACANTHOSIS
...the basic lesion of
PSORIASIS



BEFORE USE OF RIASOL



AFTER USE OF RIASOL

he mechanism of its mercurial content, mically combined with penetrating soaps, lains the success of RIASOL in the treat- t of psoriasis.

he basic lesion is known to be *acanthosis* excessive proliferation of the prickle-cells ted in the stratum mucosum of the epi- mis. Mercurials in very low concentration, in RIASOL, inactivate the sulfhydryl ymes and thus interfere with the cellular abolism and function (Hellerman,[1] Bar- & Kalnitsky[2]).

Mercury compounds, in suitable vehicles, also extensively absorbed from the in- skin," say Goodman and Gilman[3] in 1955. saponaceous vehicle of RIASOL carries therapeutic mercury deep into the prickle- layer of the skin, where it restrains the ormal cellular proliferation and thus ks acanthosis.

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erman, I., *Physiol. Rev.* 17:454, 1937.
ron, E. S. G. & Kalnitsky, G., *Biochem. J.* 41:346, 1947.
dman, L. S. & Gilman, A., *The Pharmacological Basis of rapeutics*, 2nd ed., 1955, p. 970.

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RIASOL for PSORIASIS

Elongated Styloid Process As a Cause of Pain in the Neck

Pain in the pharynx and neck in patients whose tonsils have been removed may be due to elongated styloid process presented in the tonsillar fossa. Palpation of the fossa will reveal the elongation. If pressure on the process reproduces the pain the diagnosis is confirmed. One should be alert to the possibility of an elongated styloid process in cases of pharyngeal and neck pain.

Hill, F. T., *J. Maine M. A.* 46:31-33, 1955.

Masked Epilepsy

In case 1, an 8-year-old boy had recurrent attacks of severe vomiting from the age of 2. Twitching of the right side of the face and unawareness of his surroundings during an attack occasionally occurred. In case 2, bouts of fever and vomiting, began at age 8, continued for some years until antiepileptic therapy was instituted. In case 3, a boy of 4 yrs., had attacks of headache, sleepiness and vomiting from the age of one. Cyclic headaches and behavior problems featured case 4, a 3-year history of headaches case 5. Attacks of abdominal pain, for which many diagnoses were entertained were found to be epilepsy, in cases 6 and 7.

These symptoms do not represent an aura but the epileptic attack itself. If such symptoms recur at intervals or persist for long periods, epilepsy may be suspected. In all cases, the possibility of a cerebral tumor should be ruled out before epilepsy is diagnosed.

Other points that should suggest epilepsy are a family history of seizures, pallor during attacks, drowsiness following them, and improvement on anticonvulsant medication. Electroencephalograms should be taken, but, as in grand mal and petit mal, abnormalities are not always found. Diagnosis without ECG evidence is difficult but can be made on the basis of strong family history and response to medication.

It has been suggested that "3 months colic" (cause unknown) may sometimes be due to epilepsy. This may also be true of cyclical vomiting. Many cases of migraine are possibly masked epilepsy.

Phenobarbital relieved the symptoms of the 7 patients described.

Therapeutic Notes, 62, 5:138, 1955.

Mesenteric Adenitis a Frequent Cause of Recurrent Abdominal Pain

A frequent cause of recurrent abdominal pain in the young is nonspecific mesenteric adenitis. The author has seen more than 100 cases in one year in hospital practice. The usual diagnosis before admission was chronic appendicitis. Awareness of the frequency and presenting features, makes possible a clinical diagnosis in almost every case. Particularly important is a deliberate attempt, by manual pressure, to palpate the firm, bean-sized nodes through the abdominal wall.

Fitzgerald, M. J. T., *Brit. M. J.* 4911:476, 1955.

"Colitis" May be Cancer

In a recent study of 1564 cases of chronic ulcerative colitis, it was revealed that cancer occurred 30 times more frequently among these patients than in individuals of similar age groups in the general population. Careful follow-up should be made of all persons with chronic ulcerative colitis.

Cancer Bulletin, (N.C. Div.), 5:34, 1955.

NEW PHARMACEUTICAL PRODUCTS

Latrodol *(Tailby-Nason)*

Each tablet, capsule or teaspoonful (5 cc) of the liquid form contains 200 mg. of mephenesin, 25 mg. of nicotinic acid, and 5 mg. of belladonna extract. *Indications:* painful muscular spasms, muscular rheumatism, stiff neck, myostitis, anxiety neurosis and low back pains (lumbago). *Dosage:* 1 or 2 tablets, capsules (or teaspoonful of the liquid) 3 or 4 times daily as needed. *Supplied:* capsules in bottles of 100 and 1000; tablets in bottles of 100 and 1000; liquid in bottles of 1 pint and 1 gallon.

Vascutum Improved *(Schenley)*

A two-piece hard gelatine capsule containing choline bitartrate 349 mg. inositol 167 mg. di-methionine 84 mg. pyridoxine HCl 0.67 mg. vitamin B_{12} 2 mcgm, quercetin 15 mg. and ascorbic acid 12.5 mg. *Indications:* prevention and treatment of atherosclerosis and its sequelae, including vascular degeneration, thrombosis, apoplexy and coronary heart disease. Also in such liver disorders as fatty infiltration, cirrhosis, necrosis, and alcoholic and toxic hepatitis. *Dosage:* Recommended daily dose is six capsules, three on arising and three on retiring. *Supplied:* bottles of 100 and 1,000 capsules.

Enterobiotic Tablets *(Pfizer)*

Oral antibiotic containing 50 mg. of terramycin as the crystalline hydrochloride and 25 mg. of neomycin sulfate in each tablet. *Indications:* preoperative antisepsis of the gastrointestinal tract. *Dosage:* as directed by physician. *Supplied:* bottles of 40 yellow, uncoated tablets.

Halabar No. 2 *(Carnrick)*

A new relaxing sedative of higher potency than its companion product, Halabar. Each scored tablet contains 28 mg. butabarbital and 300 mg. mephenesin. *Indications:* for use as a general relaxing sedative in anxiety states, insomnia, etc. *Dosage:* one tablet after meals and at bedtime if needed. *Supplied:* bottles of 100 tablets.

Paraldehyde *(Rorer)*

Hypnotic for intramuscular or slow intravenous injection. It may be diluted with physiological saline (to 10% solution) when used intravenously, or 1 cc. may be injected very slowly undiluted. Pain resulting from intramuscular injection rapidly disappears with onset of sleep. *Dosage:* 2 to 4 cc. Contraindicated in broncho-pulmonary disease or hepatic insufficiency. *Supplied:* 2 cc. ampuls in boxes of 12, 25, and 100; 5 cc. ampuls in boxes of 6, 25, and 100.

Mulvidren *(Stuart)*

Children's multivitamin. Each tablet contains Vitamin A, 5000 USP Units, Vitamin D, 1000 USP Units, Vitamin C, 60 mg., Vitamin B_1, 2 mg., Vitamin B_2, 2 mg., Vitamin B_6, 1 mg., Vitamin B_{12}, 5 mcg., Calcium Pantothenate, 3 mg., and Niacinamide, 10 mg. *Dosage :* Softab daily. *Supplied:* bottles of 50 and 100 tablets.

V-Cillin *(Lilly)*

A new penicillin which is acid-resistant and gives significantly higher blood levels in oral doses than penicillin-G. It is the acid form of phenoxymethylpenicillin. *Indications:* Infections caused by penicillin-sensitive organisms, such as streptococci, staphylococci, pneumococci, and gonococci. It is also given to prevent secondary infections and streptococcus infections in patients with history of rheumatic fever. *Dosage:* one or two pulvules every four hours. *Supplied:* bottles of fifty pulvules.

Solu-Cortef, 100 mg., Sterile *(Upjohn)*

The hemisuccinate sodium ester of hydrocortisone with high solubility in water. It is particularly suitable for intravenous use especially in emergency situations where immediate high levels of circulating hydrocortisone are required. *Indications:* acute adrenal cortical insufficiency, shock unresponsive to standard antishock therapy, acute hypersensitivity reactions, disseminated lupus erythematosus. *Dosage:* 100 mg. injected intravenously over a period of about one minute. Subsequent doses of 50 mg. may be given as required. *Supplied:* 10 cc. vials.

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Support of the Circulation During Anesthesia

To prevent excitement and struggling during the induction of anesthesia in a patient with serious heart disease, a minimal, sleep-producing dose of Pentothal or Surital is invaluable. Even small doses of the IV barbiturates will, on occasion, produce a sudden, profound fall in blood pressure. Have ephedrine or methoxamine (Vasoxyl) in a syringe with a needle attached ready for immediate IV injection. 100% O_2 for several minutes before starting the anesthetic will increase the narrow margin of safety which may exist.

L. Nanzetta, *North Carolina M. J.*, 15,581, 1954

75 to 80% of Patients May Be Maintained on Oral Mercurials

Neohydrin® by mouth appears to have about ¾ the diuretic potency of the reference standard Mercuhydrin®. Single high peaks of diuresis, seen after parenteral therapy, are not produced. A less marked immediate effect but rather a gradual and sustained increase in sodium and water excretion has been observed. Sustained therapy with oral mercurials is distinguished from the discontinuous therapy necessitated by other oral diuretics.

Once the patient has been brought to dry weight it appears that from 75 to 80 per cent of all patients who would ordinarily require parenteral mercurial injections may now be satisfactorily maintained by oral mercurials.

Author reports that a "considerable" number of patients have been maintained on oral therapy with Neohydrin for more than a year.

J. Omaha Midwest Clin. Soc., 16:45, 1955.

Adrenalectomy For Breast Cancer

A series of 56 patients had bilateral adrenalectomy for disseminated breast cancer. In a number of cases both subjective and objective improvement has been achieved which has never been accomplished before by any other method of treatment. Relief of pain from skeletal metastases, regression of visible and palpable lesions, reossification of skeletal metastases, and union of pathological fractures have followed adrenalectomy. Beneficial effects have been achieved in 60% of patients; and in 23% of all cases the improvement was quite remarkable and surprising.

The risk of the operation is reasonable and maintenance of life on cortisone simple. It seems justifiable to advise the operation at an earlier stage of the disease.

Cade, Sir Stanford, *Brit. M. J.*, 4904:2-5, 1955.

Anal Pruritus

Radical operative procedures for anal pruritus have been abandoned. However, when surgical procedures are done on pruritic patients for the removal of obvious anorectal pathology, the perianal skin is routinely undercut at the same time. This is a simple procedure, and it does not prolong the healing period. If the undercutting is thoroughly done, the patient will be completely relieved of any itching until sufficient time has elapsed for the nerve fibers to grow back — usually several months — during which time adequate measures can be taken to treat the skin.

Frykman, H. M., *Minnesota Med.*, 38, 1:19-27, 1955.

Staphylococcal Sepsis: Control With Antibiotics

Generalized staphylococcal infections are severe and the fatality rate is high. Control and management of these infections should include measures of prevention. The toxic and enzymatic properties of the microorganisms, resistance to antibiotics, and the survival of organisms in abscesses are some of the problems to be solved. Treatment will be more successful when the identity of the causative agent and its sensitivity to antibiotics are known. Management should be immediate, aggressive and continued until all signs of infection have subsided.

R. I. Wise, *Minnesota Med.*, 37:37:857, 1954.

Prophylaxis Against Bacterial Endocarditis

Penicillin is the choice for patients with rheumatic or congenital heart disease undergoing dental procedures. High concentrations are required at the time of the operative procedure.

The dosage employed for long-term prophylaxis of rheumatic fever are inadequate. There is reason to believe that continuous maintenance of penicillin in the blood for several days will result in the death of organisms lodged in the heart valve during the period of transient bacteremia.

The broad-spectrum antibiotics should be employed for prophylaxis in patients who are sensitive to penicillin, or in those who are undergoing surgery of the urinary or lower gastrointestinal tract — oxytetracycline, chlortetracycline, or erythromycin in full dosage for 5 days, beginning treatment the day prior to to surgical procedure.

Public Health Reports, 70, 4:373-377, 1955.

Medical Management of Hyperthyroidism

Testosterone in daily doses of 25 mg. at first and later half that quantity, should be used if the patient is not in N balance and is wasting.

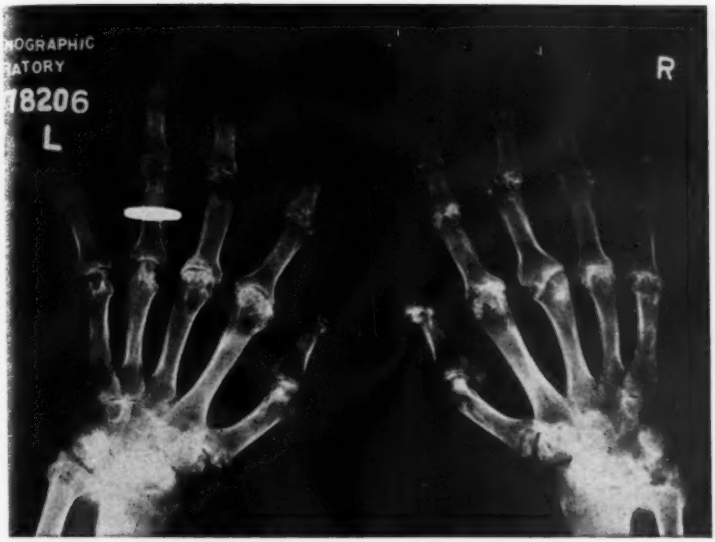
One should be on the alert for development of diabetes mellitus by the hyperthyroid patient; 2 to 4% of all cases are made permanently diabetic by their disease.

J. D. Hughes *Tennessee M. A.*, 47:313, 1954.

Progress in Obstetrics

After many years morphine, long on the forbidden list, is coming back into some popularity for use in certain labor cases. There is no drug as valuable as morphine to soften a very rigid, firm, thick cervix in the course of labor. Do not use morphine if delivery is going to occur within 3 hours, because it is a severe respiratory depressant to the infant.

J. L. Royals, *J. Louisiana State Md. Soc.*, 106:39 1954.



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References: 1. Fremont-Smith, P.: J.A.M.A. 158:386, 1955. 2. J.A.M.A. 141:124, 1949. 3. M. Times 81:41, 1953.

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Cosmetic Surgery 5000 Years Old

The Ebers Papyrus of 1500 B.C. states that grafting of tissue was practiced by the Egyptians as far back as 3500 B.C., and the Vedas of equal antiquity reveal that both flap and grafting operations were well known among the ancient Hindus. Many plastic operations were developed to replace the noses of men who had suffered the ravages of syphilis, the ignominy of defeat in battle, or the penalty for stealing.

Many types of operations are justified by the psychologic lift they give the patient and the patient's family. Cosmetic surgery often serves as an adjunct of psychotherapy, but no such operation should be done upon psychotic patients, or patients with certain types of severe psychoneurosis. I have found it extremely helpful to enlist the aid of a trained psychiatrist in any questionable case.

Robertson, G. W., *J. Florida M. A.*, 41, 8:629-634, 1955.

Pyridoxine Hydrochloride in the Treatment of Acute Alcoholism

A report cites 6 cases of acute alcoholic intoxication in which pyridoxine HCl in doses of 50-110 mg. IV, appeared to be a specific antidote reversing states of drunkenness to complete sobriety in a matter of minutes.

The author employed pyridoxine HCl in the treatment of delirium tremens in dosages to 1000 mg. IV, either in the concentration of 100 mg. per cc., or added to 500 cc. 5% glucose in distilled water. In this dosage pyridoxine completely relieves the physical and mental manifestations of delirium tremens in a matter of 3 to 4 hours. Sedation is not necessary.

IV pyridoxine HCl should prove helpful in the differential diagnosis of coma due to alcohol or traumas or alcohol and other drugs.

E. J. Palmer, *Virginia M. Monthly*, 82:15, 1955

Remarkable Results from Treatment of State Hospital Patients with Reserpine

The results of treatment with reserpine on a total of 221 chronically-ill patients over a 2- to 6-month period are presented. These include 186 women, all but 7 of whom are chronic schizophrenic patients, and 35 men, all severely regressed chronic schizophrenics.

An effort was made to select a fairly representatve cross - section series of groups of long-term patients all of whom had received standard forms of therapy without response and had an extremely poor prognosis.

The "shock-reversible" women, 82, responded so dramatically that the chronic maintenance electroshock program was abandoned. Of these patients, 59 have been discharged from the hospital or are awaiting social planning, but are deemed ready for discharge. Only 11 are unimproved, the remainder showing varying degress of improvement.

The "shock-resistant" group, including 104 women and 35 men, have been under treatment for only 2 months. Of these, 19 are discharged or ready for discharge, after hospitalizations up to 13 years. Fifty two show definite clinical improvement. The remainder have not yet shown response to therapy.

The authors believe reserpine to be a valuable new adjunctive or even replacement therapy in the treatment of chronic schizophrenic patients who were formerly considered more or less permanently institutionalized. We plan, at our hospital, to continue increasing investigation on a larger scale in both this problem and in the other types of mentally ill patients who constitute our population.

Tasher, D. C., et al., *Ann. New York Acad. Sc.*, 61, 1:108-116, 1955.

Treatment of the Pneumonias

Although antibiotic therapy need not be withheld until a bacteriologic diagnosis of pneumonia is made, cultures of the blood and sputum are desirable to permit a later change-over to that therapy which will most rapidly destroy the causative organisms. The presence of gram-positive organisms on a stained smear of the sputum suggests use of penicillin or a combination of penicillin and dihydrostreptomycin, while one of the broad-spectrum antibiotics is indicated if gram-negative organisms are found.

Leukocytosis suggests bacterial pneumonia, leukopenia viral pneumonia.

Staphylococcal pneumonia is likely with influenzal infections, may be severe.

Friedlnader's pneumonia is rare, but prompt identification is necessary because of the severity of the infection, its unfavorable prognosis if untreated, and the fact that it does not respond to penicillin. Diagnosis is made on the finding of encapsulated, gram-negative bacilli in the sputum, pleural fluid, or blood. The most consistently effective drug is Chloromycetin 1 gm. q. 6 h., or 0.5 to 1.0 gm. q. 4 to 6 h. parenterally.

Large numbers of H. influenzae in sputum cultures require that antibiotic treatment be directed toward eliminating this organism. Chloromycetin may be employed in dosage of 1 gm. initially, then 0.5 gm. q. 4 to 6 h.

H. influenzae occurred as a complicating factor in 22% of 186 patients with primary atypical pneumonia. In those patients treated with Chloromycetin, there was a prompt temperature fall and symptomatic improvement; sputum cultures cleared.

Primary atypical (viral) pneumonia is now one of the most prevalent types of pneumonia; recovery usually ensues without specific treatment. Diagnosis is readily made in times of epidemic but may be elusive in sporadic cases. Give a priming dose of 2 gm. Chloromycetin perorally, then 0.5 gm. q. 6 h. After 18 hours, 12 of 14 patients with maximum temperature above 103 showed a temperature drop to 100.

Chloromycetin should not be used indiscriminately or for minor infections.

Therapeutic Notes, 62, 1:1-5, 1955.

Six Small Meals a Day in Pregnancy

Six small meals a day during pregnancy rather than 3 large meals is recommended, each feeding to contain either meat, eggs, or milk.

An exhibit showed that the "interval feeding regimen" makes for better utilization of food. Small, frequent feedings are desirable for patient comfort, particularly during the third trimester, since there is actually less space for gastrointestinal function.

Tompkins, W. T., *Ciba Reports*, 26, Jan., 1955.

Maintain Effective Medication in 10 Days

Penicillin in effective concentrations should be maintained for at least 10 days in the treatment of streptococcal infections. This may be accomplished by the single injection of 600,000 to 900,000 units of benzathine penicillin, or by the oral administration of 250,000 to 500,000 units of penicillin twice daily for 10 days. Erythromycin, chlortetracycline and oxytetracycline should be reserved for those patients who are unable to tolerate penicillin and, if they are employed, should be administered for at least 10 days.

Catanzaro, F. J., et al., *Ann. Int. Med.*, 42:345, 1955.

Pruritus—Simpler Agents Usually Best

During the past 5 years at least 60 new preparations have been reported to be of aid in the treatment of pruritus. Few of these have been used with adequate controls, and in the future most will probably fall into disuse.

The cooling effect of water, saline or starch soaks, Burow's solution 1:60, potassium permanganate 1:10,000 etc., has stood the test of time. They are non-sensitizing and certainly in the acute, oozing, infected, excoriated stages are without peer. They also remove crust, oozing proteins, and so may reduce secondary bacterial and fungus infection. Calamine and other types of shake lotions tend to cool and are helpful. Those with solids tend to cake if there is much oozing.

Mescon, H., et al., *Pennsylvania M. J.*, 58, 4:399-402, 1955.

Cellophane Tape for Closure of Lacerations

A report is made on a series of 104 lacerations. All were cleansed with soap and water.

Those grossly contaminated were irrigated profusely with normal saline; and those even more soiled were gently brushed out with a soft brush. No antiseptic of any kind was applied. After debridement, cleansing, and hemostasis, the skin was dried with a sterile gauze sponge and the edges approximated by taping across the wound at right angles with strips of Scotch tape. No other dressing was applied. Only one infection occurred in the series.

Occasionally the tape was loose and came off, but it is a simple matter for the patient to wash the laceration and apply new tape. In this series of cases the tape came off in only 9 instances.

Paul Williamson, *G.P.*, 10:64, 1954

Treatment of the Common Cold

Author gave a small series of cases a course of the 2 vitamins — ascorbic acid, 200 mg. 4-hourly, and vitamin B compound tablets t.i.d. — and a series of controls were given dummy tablets. Day-to-day records were made and nose and throat swabs taken at the first inspection. Of the 12 given genuine tablets, 11 were fit on the third day, one went home and was not seen for 2 weeks. Of the 10 given dummy tablets, 5 were considerably worse on the 6th day, 1 was fit on the 4th day, and 1 was fit on the 2nd day. The other 3 did not attend again. The results have been so dramatic that I feel that others should be given a chance to try it.

A. S. Woolstone, *British M. J.* 4899:1290, 1954.

Chronic Leg Ulcers: Treatment with Absorbable Gelatin Sponge Powder

Absorbable gelatin sponge (Gelfoam®) powder therapy was given to 106 ambulatory patients with chronic ulcers of the leg in the period, June, 1951, Nov. 1953. In 86 patients the ulcers were healed completely, in 11 patients they were improved, and in 9 they remained unimproved. Additional studies by the method of paired comparison were done to compare the effectiveness of gelatin sponge powder with that of chlortetracycline (Aureomycin) ointment, silver-leaf foil aloe vera leaf, and crystalline trypsin (Tryptar) powder. The results of the paired comparisons revealed that absorbable gelatin sponge powder was more effective, in that ulcers treated with it formed granulation tissue more rapidly and healed sooner than those treated with any of the other agents.

I. L. Milberg, et al., *J.A.M.A.*, 155:1219, 1954

BOOK REVIEWS

Surgery of the Alimentary Tract

by Richard T. Shackelford, M.D. Assistant Professor of Surgery, Johns Hopkins University School of Medicine; assisted by Hammond J. Dugan, M.D., Assistant in Surgery, Johns Hopkins University School of Medicine. W. B. Saunders Company, Philadelphia and London. 1955. In 3 volumes. $60.00

Dr. Warren Stone Bickham of New York, in 1924, put out a 6-volume work covering the technic of general and special surgery. This work met with great success. After the author's death, Dr. C. Latimer Callander of California worked on the revision for a 2nd edition from 1938 until his death in 1947, but no part was got in form for publication. In 1949 the present author took over the task, in the course of which he rewrote everything that Dr. Callander had written.

This edition differs from Dr. Bickham's in that evalution of every procedure described is offered. "The general concept of this work and its basic outline are Bickhan's; many improvements and additions are Callander's; the writing, the evaluation, and the deficiencies therein are mine," is the generous statement of the present author.

The surgery of the different organs and parts, after anatomy and physiology are considered, is described; as to anesthesia required, incisions, special principles involved, condition of disease on injury encountered, special diagnostic tests or procedures, details of operative procedures, special difficulties to be anticipated and methods of overcoming them, followed in each chapter by a comprehensive list of references.

Such a work does not lend itself to review. One can say, after judicious sampling, that nothing appears to have been left out, that the text and illustrations combine to make exposition of the different subjects remarkably clear, that the description is so lively as to be entertaining; in short, that it is a master book by a master surgeon. An enthusiastic reception is confidently predicted.

Differential Diagnosis: The Interpretation of Clinical Evidence

edited by A. McGehee Harvey, M.D., Professor of Medicine and Head of the Department of Internal Medicine, The Johns Hopkins University School of Medicine, and James Bordley, III, M.D., Clinical Professor of Medicine, Columbia University, New York and of Albany Medical College. W. B. Saunders Company, Philadelphia. London. 1955. $11.00

In the choice of cases the authors have given preference to those in which the studies were carried out

in the past 10 years, this so as to include diagnostic procedures now in use. Some cases included make use of only the then standard, 3-limb ECG leads, these and other findings and interpretations, just as they appeared in the original case history. Clinical histories, physical examination, and progress notes are condensed versions of the abstracts prepared for the conference. The reports of autopsy findings have been severely condensed. All this should make for highly informative presentation of the essentials of every one of the hundreds of case reports here included.

Obstetrics

by J. P. Greenhill, M.D., Senior Attending Obstetrician and Gynecologist, The Michael Reese Hospital. 11th edition, 1170 illustrations on 910 figures, 144 in color. The W. B. Saunders Company, Philadelphia. London. 1955. $14.00

The preface to this edition tells us that many new data have been added on all phases of the subject of obstetrics, going back to the physiology of the uterus, the fetus and the newborn, and coming up through the toxemias and hemorrhages of pregnancy, diseases of the kidney and the nervous system, puerperal infection, asphyxia, retroblental fibroplasia and cerebral palsy. There are entirely new chapters on Roentgenology in Obstetrics, Analgesia and Anesthesia, Fetal Erythroblastosis and the Rh Factor, Diseases of the Nervous System, Induction of Labor and Prolonged Labor. Also there is a special chapter on Endocrine Changes and Diseases During Pregnancy.

In order to make the book as accurate, authoritative and as current as possible, the aid and advice of experts in various branches of medicine has been again enlisted.